

JPRS Report

Soviet Union

Military Affairs

19980127 126

DTIC QUALITY INSPECTED 2

DISTRIBUTION STATEMENT A
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U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL INFORMATION SERVICE
SPRINGFIELD, VA. 22161

Soviet Union

Military Affairs

JPRS-UMA-89-019

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31 July 1989

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**Toxicology Subcommittee Conclusion on
Military Use of Gas Against Civilians in Georgia**
18010807b Tbilisi ZARYA VOSTOKA in Russian
24 May 89 p 3

[Article by Malkhaz Zaalishvili, chairman of the Chemical Toxicology Subcommittee and academician in the GSSR Academy of Sciences: "The Conclusion of the Chemical Toxicology Subcommittee"]

[Text] The conclusion has been reviewed and approved by the GSSR Supreme Soviet's Commission for Investigating the Events of 9 April 1989 in the City of Tbilisi (Report No. 6 of 17 May 1989).

On 15 April 1989 a chemical toxicology subcommittee made up of prominent republic toxicologists and pharmacologists began the process of identifying the toxic chemicals used by military units for breaking up the unsanctioned peaceful demonstration of 9 April 1989 in front of the Government Building in the city of Tbilisi, traces of which were found on the outer garments of the victims, in soil samples taken at various parts of the city and in material evidence found in the area of the actions and in the area where the military units were stationed. Samples of chemical agents turned over to the commission by military department officials and allegedly used for dispersing the demonstrators were also examined.

It was determined that the military units used various kinds of Cheremukha gas, which contains the lacrimatory toxic substance chloroacetophenone (KhAF). A second highly irritating substance, CS, was also used in addition to chloroacetophenone. The USA used it in large quantities in Vietnam, but it had such a major effect on the human organism that the USA was forced to remove the substance from its arsenal.

The findings of medical examinations of those who died and those who suffered on 9 April were not at all consistent with the use of these toxic substances alone. The patients have exhibited mental disorders and damage to the central nervous system resulting in death. Based on this it can be concluded unequivocally that more powerful active toxic substances were also used, substances which irreversibly block specific receptors in the central nervous system. Chemical analysis of the samples showed a heterogeneity of the substances used—that is, the existence in them of a certain number of admixtures producing a reaction to, among other things, tertiary amine. Derivative amines are neurosuppressants. In the absence of proper information, it will unfortunately take a fairly long time precisely to identify the substance used and their composition. It can be concluded, however, that medium concentrations of these substances produce prolonged nervous disorders and high concentrations result in death. Death does not result from low concentrations, but they have long-lasting effects. This is what caused the second wave of poisoning of participants in a mourning ceremony in front of the Government Building and at other sites in

the city of Tbilisi. The situation was made worse by the fact that after the curfew was lifted the military units left capsules and toxic substances where they had been stationed, which continued to have a toxic effect. Unused ampoules and cartridge cases were also left in other parts of the city.

Furthermore, it should be pointed out that the military units used far more of the toxic substances than was reported in the press, because a vast area of the city of Tbilisi was actually contaminated on 9 April (establishments located on and next to Rustavili Avenue: the Theater Institute, the First Model Secondary School, the conservatory, and others).

Around 4,000 people have already requested medical aid at the present time. Their fate and their health are jeopardized even more by the fact that the military specialists have still not reported what toxic substances were used in addition to those indicated. The proper antidotes were therefore not administered in good time, and we know that there is no point in using them after a certain period of time has elapsed. The situation is exacerbated by the fact that we do not know the possible genetic effects of the substances used.

And so, military units perpetrated a totally unjustified, barbarian act against the republic's peaceful population, using toxic substances which they have neither the moral nor the legal right to use.

**Military Readers' Reactions to Debate in
Congress of People's Deputies**

Military-Related Voter Concerns

18010803 Moscow KRASNAYA ZVEZDA in Russian
6 Jun 89 First Edition p 1

[Comments published under "Telegrams to the Issue"]

[Text] During the days of the work of the Congress, telegrams have been received to many USSR people's deputies representing the Armed Forces as well as the political bodies and the editors of KRASNAYA ZVEZDA. We publish some of them.

**To the Congress Presidium, copy to USSR People's
Deputy, Comrade V.N. Varennikov**

We are concerned by the speeches of certain delegates who defame the army. Our army has won affection and respect by unstinting aid to the people. During the most difficult and tragic minutes it is the first to come to our aid. We know this firsthand. An example is the tragedy of the earthquakes in Armenia and Gissar.

With respect,
Inhabitants of the
Village of Okuli-Pozi,
Victims of the Earthquake in
Gissarskiy Rayon of Tajikistan

To the Presidium of the Congress of USSR People's Deputies

With a full sense of responsibility we state that never and under no circumstances did Soviet helicopter troops in Afghanistan fire on our soldiers who were in a difficult situation, even up to encirclement. Even then, when we called fire in on ourselves, the helicopter troops did not open fire.

There is nothing more we wish to state here. We must go through and test out this before bringing it before the people's rostrum. The people must know the entire truth about Afghanistan. Precisely ignorance provides an opportunity to besmirch the USSR Armed Forces. We urge the USSR Supreme Soviet in the future to resolve the question of providing international aid with the people.

In taking this occasion, we send our ardent combat greetings to Gen Gromov, Ruslan and Aushen and all fellow servicemen. Let there be perestroyka!

On behalf of 2,000 internationalist
soldiers from Kazan,
Chairman of the Soldiers Council,
the Internationalists Murkov,
Council Members Gasakov, Garapov,
Nurkev, Krylov and Kabyshev

To the USSR People's Deputy, Lt Col V.S. Podziruk

We strongly urge that at the Congress you raise the questions of the problems in the USSR Armed Forces including the lack of social concerns for the officers, the neglect of their families and the absence of opportunities for normal preschool education and school instruction for the children.

With respect, your electors,
officers, warrant officers ["praporshchik"],
and serviceman families.
Over 200 signatures.

Military Involvement in Ecology Urged

18010803 Moscow KRSNAYA ZVEZDA in Russian
6 Jun 89 First Edition p 1

[Article by N. Moroz, State Fisheries Conservation Inspector from Kamchatka Oblast: "A Unified Program on Ecology"]

[Text] The work of the Congress more and more is moving into a business-like channel and is acquiring a constructive character. As far as I can judge, gradually they are determining the range of problems on which the positions of virtually all the deputies converge. I am hopeful that even greater attention will be given to the problems of ecology. The taking of fundamental decisions on them is imperative, since the question of protecting the environment has been poorly organized in

the nation. As they say, there is no place for us to retreat. The current conservation legislation is ineffective. The plans for new industrial development of the territories as before are being worked out without proper ecological expert advice.

We are particularly indignant over the departmental separation of the services which should guard our natural resources. For example, the fishery conservation bodies have been turned into an appendage of the Ministry of Fish Industry, the main plunderer of the nation's fish stocks as one can judge from the bitter fate of the unique Kamchatka Shelf.

The Ministry of Defense also within its system has specialists on conservation. I have had occasion to work with some of them. They are well trained and concerned for their job but their opportunities are very limited. I see only one way out of the arising situation: everything that concerns ecology should be concentrated in one body and best in the local soviets. Possibly it makes sense to give some thought to a unified state ecology program.

Military Reader Displeased With Dissent

18010803 Moscow KRSNAYA ZVEZDA in Russian
6 Jun 89 First Edition p 1

[Article by Capt A. Kobzar: "We Are Expecting Wise Decisions"]

[Text] The Congress of USSR People's Deputies presently underway has evoked complex feelings in me. On the one hand, one can see the concern of many deputies for the state of affairs in the nation, but one is also surprised by the position of those who have endeavored to emphasize procedural questions and stipulate various conditions. In my view, I do not find valid the statement by the representative from the Lithuanian delegation who proposed that the elections of the USSR Supreme Soviet be conducted by republics and only then approve the voting results. We live in a single country and there is scarcely any need for an artificial dividing into "ours" and "theirs," particularly in our changing times. It is hard to understand Yu. Afanasyev who stated that a "Stalin-Brezhnev" Supreme Soviet had been elected. I feel that it is out of place for a prominent historian and writer to casually apply labels.

We need a serious, constructive debate. We are expecting from our elected representatives a concerned discussion, wise decisions, primarily on the fundamental questions of life.

Military Delegates Urged to Speak Out

18010803 Moscow KRSNAYA ZVEZDA in Russian
6 Jun 89 First Edition p 1

[Article by Lt Col I. Smaznov from the Moscow Air Defense District: "A lasting Silence"]

[Text] I have been closely following the work of the Congress and particularly the speeches. But, unfortunately, not one of them has reflected those difficult

processes occurring in the Armed Forces. Certainly there is underway the destruction of a certain class of weapons and combat equipment and a reduction in personnel, including officer. In many garrisons the social problems have become worse and the tasks which are being carried out by our Army are not easy: this could be spoken of at the Congress. For this reason against the background of all of this I find it surprising that the military deputies have still not spoken from the rostrum of the Congress setting out a program and up to now have merely given replies or comments. Who will break the silence? Certainly the Congress is getting on with its work.

Military Role in Interethnic Problems

18010803 Moscow KRASNAYA ZVEZDA in Russian
6 Jun 89 First Edition p 1

[Article by Lt Col V. Usmanov: "This Concerns Us"]

[Text] We cannot help but note that a large number of delegates has discussed interethnic relations. These problems were already touched upon by the speakers Col V. Martirosyan and Lt Col P. Falk who, incidentally, serves in our district.

But they have merely touched upon the issue and from the rostrum of the Congress they have not conducted a frank, sharp and thorough discussion of the questions of internationalism and without which, for example, our Army service is literally inconceivable.

At present, in the Lenin rooms of our regiment sitting, cheek to jowl, as they say, in front of the television sets during their free time are Armenians and Azeris, Georgians and Latvians, Moldavians and Russians. Of course, they exchange opinions and ask scores and hundreds of questions of the company commanders and other officers. At times, the debates are heated. However, they do not disunite our soldiers but rather bring them together. This process, I know, is also characteristic of other units and formations as well as the district as a whole. Is it possible for the army now to say that it has experience in international education? I feel it can. But why then don't the serviceman deputies share this from the high rostrum of the Congress? And at the same time take up the unresolved aspects of this difficult question. I am confident that the deputies would not remain indifferent to the problems of the army. They will help, they will provide suggestions. Ultimately combat readiness will stand to gain.

Greater Frankness, Truthfulness Pleaded

18010803 Moscow KRASNAYA ZVEZDA in Russian
6 Jun 89 First Edition p 1

[Article by Col V. Rudakov, from the Southern Group of Forces: "Without Documents and Proofs"]

[Text] In listening to the sharp comments by the deputies, more and more frequently I ask myself: What does the nation need first of all? We have certainly been

focusing on the failings including the budget deficit, interethnic relations, ecology, public health, law.... But still, without fearing to be seen as trivial, I feel that first of all we must solve the food problem. It is essential to feed people.

I serve in the Southern Group of Forces. The Hungarian people at present also have many problems involved in the restructuring of their society. I know about the enormous external debt of Hungary. But, in being here, I cannot close my eyes to the abundance of food, to the absence of lines and to the high quality and diversity of the food products. Yes, the prices are often quite a bit but this is already a second question.

As a military person, I cannot help but be bothered by the questions related to perestroika in the army. Recently very often the Armed Forces have been spoken and written about disparagingly and military problems have been exaggerated in an incompetent manner, at times without arguments and proof. Is this just? I am waiting very much for a profound statement at the Congress by one of the professional military leaders but for some reason they still are silent.

Military Jurist on Need for Legal Education

18010711 Moscow KRASNAYA ZVEZDA in Russian
10 Jun 89 Single Edition p 6

[Unattributed interview with Maj Gen Just A. Muranov, chief of the Military Tribunals Directorate: "Universal Legal Training—An Immediate Task"; date and place of interview not given]

[Text] Among the questions which hold one of the central places in the work of the Congress of USSR People's Deputies is the establishing of a state of law. This problem cannot be resolved without universal legal literacy and high legal culture of the Soviet people.

In accord with the decisions of the June 1988 Plenum of the CPSU Central Committee at the end of May the USSR minister of defense issued an order for universal legal training and improved legal work in the Soviet Army and Navy.

We turned to the Chief of the Military Tribunals Directorate, Maj Gen Just A. Muranov, with a request to comment on the ideas set out in this order.

[Correspondent] I doubt that anyone need convincing that the eliminating of legal illiteracy is essential for us. But just what circumstances, in your view, make this task imperative?

[Muranov] The decision on universal legal training was dictated by life itself and by the processes occurring in the nation of perestroika and democratization and the transformations in all spheres of our life. A real manifestation of democracy, and the Congress of USSR

People's Deputies has clearly shown this, requires high legal culture not only by those elected by the people but by all the citizens of our nation. This applies fully to the Armed Forces.

The damage caused by legal nihilism is enormous. It prevents progressive changes in the Army and Navy and leads to the violating of legality and the encroachment of human rights. One does not need to go far for examples. Thus, last year the military tribunals as a whole ruled in favor of almost 85 percent of the suits brought by citizens and servicemen on the most diverse violations of legality: on eviction from departmental housing, on paying wages to workers and white collar personnel and on the restoring of them to their job. Let me add that each year the judge advocates protest thousands of illegal orders by commanders and superiors.

The existing situation, in our view, is largely explained by the fact that the system which has existed in the Army and Navy for the legal training of servicemen has suffered from substantial flaws. In many instances a formal position has been taken to studying the legislation. The measures planned now will help overcome this.

The planned restructuring of legal education, we feel, can entail many aspects of army life and above all the strengthening of military discipline. Here the relationship is a direct one. For example, in the unit under the command of Col O. Fomenko, over the last 3 years, not a single major infraction of discipline has been recorded, let alone the question of crimes. And certainly there was no sign of superior hazing ["dedovshchina"] here. In the estimate of the superior staff, the unit personnel had achieved noticeable successes in the indicators determining its combat readiness.

A study of the experience gained in the troop collective has shown that legal work here has not been limited to the obligatory measures and they conduct legal days for the entire personnel, they have set up a lecture system for legal knowledge, and the officers of the military tribunals and judge advocates take an active part in its work. In the unit there is active a council of the legal aktiv, the main task of which is legal propaganda.

In my view, universal legal training in the Army and Navy will make it possible to see to it that the high legal culture achieved in this area becomes a standard in all the troop collectives.

[Correspondent] But just what is universal legal training? How does it correlate with the already traditional concepts of "moral education" and the "moral minimum of an officer"?

[Muranov] Universal legal instruction is defined as a system of universal and constant legal training and legal education of the servicemen, military construction workers, workers and employees of the Army and Navy. Incidentally, the order of the minister of defense not only

put into effect the Manual on the Organization of Universal Legal Training but also established for all servicemen categories an obligatory minimum of legal knowledge. That is, the legal minimum becomes from now on for them the same customary notion as was previously the case for officer personnel. This will be one of the component parts of universal legal training. Nor has legal education lost its importance as a component part of ideological work. Universal legal training here should become one of the most effective means.

Suffice it to say that the amount of study hours will approximately double in the system of commander training and in the Marxist-Leninist and political studies. Significantly more attention will be given to the legal disciplines in the military institutions of learning. In the warrant officer [praporshchik, michman] schools they will even introduce a new study discipline "Principles of Soviet Legislation."

As for an improvement in the teaching of legal disciplines, here at present the question is being resolved of establishing on the Military Legal Faculty of the Military Institute a department for training instructors in law from among the officers in following a 3-year training system.

The ultimate aim of the universal legal training is seen, on the basis of increasing the level of the legal literacy of the commanders and all the personnel, in ensuring its social protection, and guaranteeing the exemplary fulfillment by each serviceman, military construction worker, worker and employee of their duties in strict accord with the law, the military regulations and other legal enactments.

[Correspondent] Anatoliy Ivanovich [Muranov], according to the law of the minister of defense, the organization and leadership of the universal training are to be entrusted to the commanders, staffs and political bodies. What role here is being given to the jurists and in particular to the judges of the military tribunals?

[Muranov] Of course, the jurists will not remain on the sidelines. As has already been announced in KRASNAYA ZVEZDA, in the divisions, corps, armies, in the squadrons, fleets and in the large garrisons and military commissariats (beginning with the oblast) and large military agencies at enterprises, they have introduced the position of deputy commander (chief) for legal work. One of his main duties is to provide help in organizing the universal legal training.

As for the role of the military tribunals, along with improving jurisprudence, our consultants and practical aid will involve literally all areas in organizing the universal training. This is both planning the training, the preparing of procedural teaching aids, disseminating positive experience and teaching legal disciplines. Even

now we are orienting the judges to a transition in legal propaganda from educational lectures and talks to systematic measures in the legal training of servicemen and primarily officers.

Incidentally, I would like to say that we have acquired certain experience already in this area. In the Central Group of Forces, for example, upon the initiative of the chairman of the group military tribunal, Maj Gen Just V. Reznichenko, last year concrete steps were taken to organize universal legal training in the troops. The initiative gained full support from the commanders, the political bodies and the community.

In the Volga Military District, the judges have worked out procedural recommendations on how to organize the study of the officer's legal minimum. Upon the initiative of the judges of the military tribunal in the Vorkuta Garrison of the Urals Military District under the Officer Club, they have set up a 2-year school for the officer's legal minimum. Further sources of interesting initiatives could also be given. So we are not beginning the universal legal training in a void.

All the court and legal educational work in the military tribunals is ultimately aimed at eradicating infractions and strengthening discipline in the Army and Navy. Universal legal training broadens the notions of the servicemen concerning the work of the military tribunals. It becomes more comprehensible for people and this means one further step in the direction of restructuring their work, broadening openness and glasnost without which a higher role for the military tribunals in the system of the military legal bodies is inconceivable. Certainly precisely the tribunals in the process of the legal reform should become the basic element in the juridical mechanism for defending the rights and legitimate interests of the servicemen.

And, in my view, what is one further important thing. Universal legal training, in shifting the accent to an awareness of military discipline, helps to solve the problem of strengthening it by educational means. And these, as is known, are always preferable to a court response.

Admiral Ivanov on Improving Servicemen's Living Standard

18010806 Moscow KRASNAYA ZVEZDA in Russian
16 Jun 89 First Edition p 2

[Article by Admiral V. Ivanov, Kaliningrad Rural Territorial Election District (RSFSR): "Judge the Army Objectively"]

[Text] It seemed to me that a military man must begin a conversation with military issues. But such are our times that the nation's problems also totally affect us, the servicemen.

Perestroyka is progressing with difficulty. Quite a few problems have piled up. Therefore, I think right now we need to concentrate our main efforts first of all on high priority issues of our peoples lives without which progress will not be possible. And they are:

Raise the level of the population's housing and daily living conditions in the city and in the village.

Resolve the nation's food problem issue by developing all forms of farming, developing just economic and production relations, establishing progressive land use laws, supplying agricultural producers with highly effective, quality, and relatively inexpensive equipment, and revitalizing the village.

Carry out the task of quality medical care for all social strata and also increase the level of middle and higher education.

Radically improve the ecological situation in all regions of the nation.

The voters' mandate to the deputies confirms the need to fulfill precisely these high priority tasks.

Stating it succinctly, I would also assign economic reform tasks which we already need to work out today and not put them off till tomorrow. I think the main thing is that we need to openly discuss the major economic issues which affect the interests of millions of people on a comprehensive financial, economic, and also on an ecological basis. And, of course, we must first of all achieve a financial balance of the nation's economy. We need to re-examine the articles of the Gosbyudzheth [State budget] and we must find additional appropriations and physical assets for carrying out high priority state tasks. We need to look into each unprofitable or low profit enterprise and take constructive decisions on them.

There is one more group of issues which I would like to raise and this is provision of real power to local soviets. Only on this basis will we arrive at true democracy and to resolution of all difficult local and state problems. And much here depends on the USSR Supreme Soviet.

I, as a peoples deputy, am really troubled by rural workers living conditions, the lack of schools, clubs, hospitals and specialists, the lack of passable roads, and the low skilled labor in rural areas. For example, to reach a doctor in Pravdinskiy Rayon where I live, we need to cover 50-70 kilometers of an area which does not have passable roads. Or another fact: A gas pipeline passes through many villages of our Oblast's Zelenogradskiy Rayon but the villages themselves do not have gas lines installed for some reason.

Nature conservation and nature management have an important place in our lives. I think it is proper to pose these questions in connection with them: Increase appropriations for protecting the environment, introduce state

ecological inspections of all construction projects, deduct enterprises assets to local soviets budgets for nature management measures, rapid development of a state ecological conservation program and rational use of natural resources, reduce the Army and Navy's combat training impact on the environment, and coordinate efforts of all shipowners on the Baltic and other seas for the purpose of preventing their future pollution. We need to find appropriations and physical assets by reducing non-priority programs for large-scale construction in the nation.

As a military man, I must dwell on certain aspects of Soviet Armed Forces activities.

An active process for developing democracy and glasnost while fulfilling the demand for high combat readiness is now occurring in the Army and Navy. We need qualitative progress today. We understand that it is difficult to re-educate a young 18-year-old man in two or three years of military service. However, we are simply obliged to form a sense of duty, comradeship, and responsibility within him, raise his political and social views, ensure military order, and establish discipline, and not allow aspects of anomalies of civilian life and "dedovshchina" [hazing of new conscripts], and ensure high combat training for the soldier and sailor.

These tasks are paramount for us. And we are attempting to carry them out using all forms of socio-political and military education.

It seems to me to be necessary to emphasize the idea that today's young people, maybe as never before, need political and ideological reference points. It is quite natural that ideological and Party-political work issues are top priority at the present time. And, of course, it is impossible to justify the position of those people, who, having a party or Komsomol card, have become shamefully silent about their loyalty to the ideals of socialism. Yes and the word itself is more frequently leaving their lexicon. Under this approach, just where do we talk about citizenship education and patriotism to the rising generation, our replacements, when there is evidence of flabbiness in our ideological positions.

One conclusion thrusts itself upon us: We need to more actively influence social consciousness, both in society and in the Armed Forces, and set in motion all levers of socio-political activity, the educational process, and mass media press, television, and radio assets.

And here we need to recall the conclusion of the 27th Party Congress which was approved at the 19th All-Union Party Conference on the need for forming, among the Soviet people, political consciousness, the ability to evaluate social phenomena from precise class positions, and defend the ideals and values of socialism. For the time being, we are poorly utilizing available capabilities. The processes of revolutionary renewal are inducing us

toward more effective work for increasing the quality of all forms of political training in the Army and Navy in accordance with the requirements of perestroika.

I would like to focus attention on yet one more problem—this is social protection of servicemen and their families. Officers and Army and Navy warrant officers are carrying out their combat missions without considering the time, assets, and efforts being expended. Frequently they do not have time for either their families or for relaxation. And military construction personnel, with ample assistance from Army and Navy personnel, are building homes and schools, hospitals and kindergartens, and roads. The Army is helping to gather the harvest and this has become a tradition. The man in military uniform, as a rule, is the first to arrive to assist when natural and other disasters occur. Thus, let us honestly, justly, and objectively judge the Army and the Navy.

It is time to seriously think about social protection of servicemen. It is really not a secret that the numbers of entrants has fallen at many military schools. This is an alarming symptom. We cannot look at these processes in a one-sided manner without understanding one thing: It is easier to lose a good specialist than it is to train one for the Army and Navy.

For example, I am revolted by the opinion that officers are allegedly the most well provided for layer of society. But really the average wage of young Army and Navy officer personnel, and they are the majority of our officers, today totals from 180 to 300 rubles a month. And this is without housing when you have to pay 100 rubles for a shoddy apartment, with constant transfers, with the impossibility of finding work for wives at garrisons, with a frequent unlimited work day, high responsibility, difficulty, and danger of missions carried out.

We the military rarely talk about our fates but thanks to the lesson of truth, I have to say it.

I think that many agree that a portion of the assets freed as a result of Armed Forces reductions must be directed at satisfying servicemen's social needs. This will also be reflected in further improvement of Soviet Armed Forces qualitative parameters.

Speaking about military people, I must touch on the events in Tbilisi. Nevertheless, I would like to pose just one question to the former first secretary Georgian Communist Party Central Committee and to certain other republic leaders: Why did they themselves not appeal to the people at that critical time on 9 April? Why did they sit in their offices protected by practically unarmed 18-year-old soldiers—really by their own sons? Why were the Armed Forces used in a function that was uncharacteristic for them?

Our Baltic Fleet is located on the territory of five union republics. And we are not altogether indifferent to what type of situation could take shape even there. As a USSR Peoples Deputy, I would like all problems of a national scale to be resolved by democratic means taking the interests of each people into account. We need to proceed along the path of consensus and responsibility for each other. Another path in national relations is simply disastrous.

People's Deputy on Ecology, Military Personnel Issues

18010807a Moscow KRASNAYA ZVEZDA in Russian
17 Jun 89 First Edition pp 1-2

[Article by Col V. Martirosyan, delegate from the Rovno Territorial Electoral District, under the rubric "The People's Deputies of the USSR Have the Floor": "The Most Acute Shortage Is the Shortage of Kindness"]

[Text] The Congress of People's Deputies—so many opinions, so many heated debates. It would be difficult to describe the sensations and feelings which I experienced then and continue to experience, so complex and contradictory are they. It is rightly said that one sees more from a distance.

Much will obviously be different in the fall than at this congress. Each of us has acquired certain experience and adapted to operating in the new situation. And still, the main work awaits us locally. It is easy to proclaim a preelection platform. Implementing it is more difficult. The electors placed their faith in us. It is now time for us to repay them. Specific action is expected of us. We have to resolve many things, resolve them immediately.

An extremely alarming ecological situation has developed in the nation. I want to talk about the ecological tensions in the hearts of the people, however. We have become callous and rude, have forgotten that there are people around us with their own apprehensions and concerns. And these concerns have to be respected. How can relations in our society be improved? This is something to think seriously about. Thousands of people die each year in our nation from heart attacks, strokes and other illnesses caused by nervous stress.

One of the main tasks we must accomplish today is that of creating a good climate at enterprises, establishments and educational institutions, in the military collectives, in all areas of our life in general. Only then, only by offering a shoulder to one another at a difficult moment, can we surmount the sharp rises and turns of the restructuring. The shortage of kindness is the most acute shortage today.

And now, about the state of the environment. We built AESs [nuclear power plants] and chemical enterprises, and we did not notice that we were sitting on a powder

keg. The Ukraine suffers especially in this respect. Our Rovno Oblast, for example, is literally surrounded by nuclear power plants. This situation is very alarming to the population.

The Chernobyl and Crimean AESs. So many questions and problems. The 5th and 6th units at the Rovno AES cannot be enlarged now. The enlargement of the 4th unit at that plant and the 2nd unit at the Khmelnytskyi AES also have to be halted. I am confident that we can find reserves, including reserves within the power engineering facilities which we have. By reducing losses in the delivery of power to the consumer, for example. How much we lose because of poor insulators and lines, structural defects and deficiencies in the power engineering equipment. Sooner or later we will have to rectify the ecological situation. He who seeks will always find the means, of course, and he who does not want to look for them will always find reasons for his inaction.

I could not fail to mention the problems of our pensioners, our war and labor veterans. We remember these people at best only on Victory Day. The rest of the time, on ordinary days, they are forgotten. We have around 50 million pensioners in our nation, 23 million of whom receive pensions of no more than 60 rubles. Ten million elderly people today need urgent medical treatment, and 100,000 people are confined to their beds. They are actually forgotten today.

They are treated in hospitals with 10-12 people to a ward. Is this acceptable? We must rectify the situation rapidly and improve the standard of living for pensioners. N.I. Ryzhkov's report contained a complete social program in this area. It should be immediately implemented locally.

We must take effective steps to protect our mothers, our women. I cannot utter the word "mama" without a quiver. In times of trial, during difficult days of common sorrow, we turn to the homeland and call her Mother. Recall the old times, when people went to their death for insulting women, when the scoundrel was challenged to a duel. And today? It is nothing for a member of the stronger sex to insult a woman. He does not even notice it. But how can he be called a man after that?

And can any of us be called men, when we permit women to work in harmful operations, in areas requiring brute physical strength? Around 280,000 women work under such extremely difficult conditions in our nation today. A total of 100,000-120,000 women give birth to deformed babies each year as a result.

We are not worth anything if we do not establish normal living and working conditions for women, for bringing up the children. Our children and grandchildren, yours and mine. I propose establishing vacations for women of at least 24 workdays and reducing their workday by 2 hours, and setting their pension age at 50 years.

I feel that women with small children should be given the opportunity to extend their postnatal leave to as long as 3 years. This would also be economically expedient. They would be able to bring up healthier children. In fact, all mothers with children in nurseries or in the younger kindergarten groups spend 20-25% of their work time at home, officially absent to care for sick children. In addition, this would mean a direct saving for the state, because children would be brought up at home to the age of 3 years. State outlays per child attending a nursery or kindergarten amount to 8 rubles a day. That is a significant amount for the nation as a whole.

The next question is about our youth. Where are they in the evenings? How do they spend their leisure time? I totally agree with the speech on this matter by People's Artist of the USSR R. Bykov at the congress. I know that for cities like Rovno the best cultural centers and drama theaters are closed to the youth. And so they are forced to spend their time in hastily converted basements. No one knows what they are doing. I feel that we parents should be placed in those basements, for we deserve it, and the youth should be given the opportunity to occupy the best facilities in the city: concert halls, cultural centers and palaces, sports facilities and riding schools. And let self-government reign there.

We must decisively improve the ideological and moral, physical, and cultural education of our youth. And we should spare neither funds nor time nor the best cadres for this. If we do not apply our main efforts to the upbringing of the youth today, we risk being isolated tomorrow and not being understood by the upcoming generation.

And what about our military problems? Who is going to resolve them? The military units presently have to devote all their attention to the combat training. During the period of the reduction this is the biggest "bottleneck." Special subunits should be formed for performing maintenance chores. But what do we have today? Of the 2 years a soldier spends in the army, only 5-6 months is actually available for his occupational training.

And now a few words about the training of unit-assigned reservists. We are not handling this matter properly. I am a signalman. I have commanded a unit for 10 years and acutely sense that it is objectively impossible for us to organize this process well. We are essentially fooling ourselves. The unit-assigned reservists study one specialty in the field of our subunits today, for example, but tomorrow the military commissariats will assign many of them to other units, sometimes very different. And our unit receives incidental people: sometimes mechanics/drivers, sometimes construction workers. They are incidental to us. The unit-assigned reservists should be permanent. And they must be trained at special training bases.

Now, about officer certification. The opinion of subordinates must be considered as one of the main evaluation criteria in the certification conclusions. This will make it possible to some extent to eliminate protectionism, to eliminate that phenomenon of stagnation in the army whereby the sons of high military leaders advance swiftly up the service ladder, regardless of their abilities. In addition, we have officers who are exceptionally gentle with superiors but are like Ivan the Terrible when it comes to subordinates, treating them with great rudeness and boorishness.

Strange as it sounds, I shall say that today, during the restructuring of the Armed Forces, many officers feel extremely uneasy, particularly those who have an ego. They can easily be discharged into the reserve tomorrow with the reduction as justification. The Soviet officer should have social protection. How can we discharge an officer who has served 25-27 years and does not have an apartment? In so many cases people of middle age leave the service for the reserve and spend years moving from one private apartment to another. They sometimes do not even have a place to put their things.

And what about the problem of officers' families? When many officers arrive at their stations, their wives have no place to work. Their length of employment is interrupted, of course. Is that fair?

An officer's wife recently called me from Minsk. She wanted me to help her place her children in an institute. According to the rules, they had to take an entrance exam on the Belorussian language. How could they have studied the language, when they had moved to Belorussia only 6 months before? Exceptions must obviously be made in such cases. We are reassigned and move from one place to another throughout the Soviet Union not at our own desire or caprice.

The homeland needs good officers. They are entrusted with highly valuable things and are charged with extraordinarily complex and responsible jobs demanding total mobilization of their spiritual and physical strengths. How can one devote himself entirely to the service, however, when his heart is aching because of the inconvenience of those near and dear to him? I appeal to all people's deputies from the pages of KRASNAYA ZVEZDA to be more attentive to the families of servicemen. Believe me, they deserve it. It is also a matter of state importance.

Cinc Ground Forces Responds To Complaint Of Geophysics Institute

18010811 Moscow SOVETSKAYA KULTURA in Russian 17 Jun 89 First Edition p 2

[General of the Army V. Varennikov: "Urgent Inquiry: Editors Of The Newspaper SOVETSKAYA KULTURA, Moscow"]

[Text] Since May 13, the seismological station of the Georgian Geophysics Institute has recorded especially strong and frequent explosions on a Transcaucasus Military District proving ground located on the territory of the

David-Garedzha Monastery Complex. In view of the special sensitivity of Georgian young people to the fate of that unique monument of world importance, these explosions must be seen as yet another provocation by the military intended to trigger further bloodshed. We ask your help in securing an immediate halt to the explosions. Academician M. A. Aleksidze, Director of the Georgian SSR Academy of Sciences' Geophysics Institute.

Reponse by the Commander in Chief, Ground Forces, to the Director of the Georgian SSR Academy of Sciences' Geophysics Institute.

In response to an appeal from Academician M. A. Aleksidze, Director of the Georgian SSR Academy of Sciences' Geophysics Institute, to the editors of the newspaper SOVETSKAYA KULTURA, I am obliged to make the following statement:

Ministry of Defense troops have neither planned nor conducted any firing or explosions on the territory of the Karayazy training center, located near the David-Garedzha Monastery Complex, in 1989. Yet this question has been raised repeatedly, despite the fact that an exhaustive explanation has been provided each time.

The fact is that exploration work is being performed in this area in the interests of the economy by seismic prospecting parties No. 7 and No. 10 of the Azneft [Azerbaijan Petroleum] and Geofizika [Geophysics] Production Associations (on the territory of Azerbaijan). And before resorting to such strong expressions as "provocation by the military," let alone "to trigger further bloodshed," the telegram's author would do well to check the facts of the matter. Then it would become clear that the army has nothing to do with this, and that the charges are groundless and based on rumors.

As a commission of USSR People's Deputies investigates the causes of the tragic events in Tbilisi of April 9, such telegrams can only harm efforts to establish the truth and cause bad feelings in the historically friendly relations between our country's peoples and the army.

We have repeatedly proposed and propose now that a joint commission be set up, consisting of members of the Georgian public and representatives of the army, to monitor troop activities on the training center's territory and to assess these activities' impact on the David-Garedzha complex; such a commission should adopt, in a businesslike atmosphere, a joint decision that would guarantee the full preservation and safety of that unique monument of Georgian culture.

The army always has been, is, and will remain with the people and protects its people's interests.

General of the Army V. Varennikov.

Response To Reports Of Military Assistance Groups Abroad

18010812 Moscow KRASNAYA ZVEZDA in Russian
21 Jun 89 First Edition P 2

[Article by Lt Col A. Dokuchayev, KRASNAYA ZVEZDA correspondent: "In Egypt, in Vietnam...: The 'Unknown Internationalists' Have Earned the Homeland's Concern"]

[Text] In the articles "We Also Fought..." (8 March of this year), "That Egyptian Year" (25 March of this year) and "We Too Defended Vietnam" (13 April of this year), KRASNAYA ZVEZDA told for the first time about the participation of Soviet soldiers in the rendering of international assistance to Egypt and Vietnam, which were subjected to foreign aggression. Many readers responded. Their letters thanked the newspaper for dealing with a subject which had been considered closed for a long time, while at the same time expressing concern about the present situation of the soldier/internationalists. The Congress of People's Deputies attached great importance to the matter of increasing our concern for the war participants and veterans, for the soldier/internationalists. Deputy A. Shchelkanov, among others, proposed that this be stated in a resolution by the congress on the main directions of USSR foreign and domestic policy.

"We did not merely carry out combat missions beyond the homeland's border; we protected friendly states against an aggressor," writes Col V. Bulgakov. "Take Korea and Vietnam, whose peoples wanted to crush the American militarists, and Egypt and Syria, where Israel's Zionist circles committed treacherous attacks. We engaged only in defensive actions. Incidentally, this can be judged from the weapons which the Soviet Union supplied those nations. They were purely defensive: surface-to-air missiles, interceptors.... In short, we were rendering truly international assistance, for which no one can reproach us...."

The readers provide details to supplement the incidents of combat operations cited in the articles and help us to determine the names of soldiers who distinguished themselves in Egypt and Vietnam. The article "We Too Defended Vietnam," for example, tells about the valorous act of a Soviet sergeant whose name was unknown. "That was Grigoriy Garkusha from Krasnodar," Maj (reserve) N. Sumenkov, former soldier/internationalist, reports. "On that fateful day, a special Saturday of volunteer work, he and I were working together with some Vietnamese. When we came across the bomb, Grigoriy immediately understood the great danger to those around and covered the "orange" stuffed with deadly spheres with his body. Sgt Garkusha was posthumously awarded the Order of the Red Star and the Vietnamese order "For Combat Feats," 3rd degree. He was buried in Krasnodar."

The subject of immortalizing the memory of the soldier/internationalists troubles many readers. This is what Maj (retired) G. Dyachenko writes: "Our people died in Korea, China, Vietnam, in the Near East.... But where are they buried? Where are their names immortalized? I know only that the pilots who died in the skies over Korea rest at a Russian cemetery at Port-Arthur." The responses contain specific suggestions. Sh. Sanzyanov from the village of Dolgo-Ostrovo, Chuvash ASSR, for example, believes that the recently established All-Union Memorial Book, which will contain the names of those who fell during the Great Patriotic War, should also include the names of the soldier/internationalists who died providing assistance to friendly peoples. "Or," writes V. Sukhar from Maritime Kray in support of him, "take the recently published short biographical dictionary 'Heroes of the Soviet Union.' It mentions more than a dozen pilots awarded the highest honors at the beginning of the '50s, but about Capt Stepan Antonovich Bakhayev it says only that he received the title Hero of the Soviet Union for providing assistance to the Korean people in repelling imperialist aggression. I believe that it is time to talk about the others."

The readers also bring up this problem. "Why do they so stubbornly refuse to consider us internationalists?" they ask. "I experienced joy and bitterness simultaneously," writes Lt Col V. Garanin from the Group of Soviet Forces in Germany, "when I learned that the soldier/'Afghaners' would be awarded the Certificate of the Presidium of the USSR Supreme Soviet and the badge 'To the Soldier/Internationalists.' The fellows earned this. But what were we doing in Vietnam? Taking it easy? No, we were participating in combat operations, and our comrades also died. I therefore believe that our newspaper is right to raise the question of extending the ukase of the Presidium of the USSR Supreme Soviet to all soldier/internationalists."

We can now report with satisfaction that on 17 May of this year the Presidium of the Supreme Soviet extended the 28 December 1988 ukase establishing the Certificate of the Presidium of the USSR Supreme Soviet to the Soldier/Internationalist to all those who performed combat missions abroad also prior to 1 December 1979.

The letters also ask about extending the benefits to servicemen who fought in Korea, China, Vietnam, Egypt and other nations. "We need restorative and corrective measures no less," writes labor veteran N. Zhuravlev from Moscow, "than other types of assistance. Many [of us] are not in good health, after all...." A city rally of soldier/internationalists in Gomel appealed to state agencies to restore justice for the "unknown internationalists." A copy of the appeal was sent to the editors by S. Yevmenenko and I. Assman. We know that the matter of benefits is now being considered by the appropriate authorities.

"The right thing to do," Col (retired) A. Zimenko of Khmel'nitskiy believes, "would be to renew the consideration of awards for a number of former soldiers who

took part in the combat operations in Egypt. The recommendations got stuck somewhere in some offices after the subunits were withdrawn from Egypt." Such letters were received also from veterans who performed their international duty in Korea. Retired officers M. Buslo and B. Bermin writes from Kaluga: "Fighter pilot Boris Sergeyevich Abakumov fought heroically in the skies over North Korea. He destroyed five aircraft in air battles, including one B-29 'flying fortress.' He was recommended for the title Hero of the Soviet Union, but... his name interfered. The case of Abakumov, Beria's right-hand man, flared up just at that time. Why not reconsider the recommendation?"

The soldier/internationalists constitute a considerable force. This is true also in the matter of strengthening ties between soldiers in the armies of friendly peoples. And to the indoctrination of the youth in the combat traditions. Also in the matter of immortalizing the memory of those who died. But how can this force be utilized? "We are something like nonconformists at the present time," reports Vladimir Vasilyevich Fedorov, a participant in the combat operations in Vietnam. "We frequently gather in small groups, talk and help one another as much as we can. It is time to unite for more productive work."

Groups of veteran soldier/internationalists have been set up under the Soviet Committee of War Veterans. "Spanish," "Chinese" and "Mongolian" groups are active. And the volunteers who fought against Franko, helped the Kuomintang in the battle with the Japanese and routed the aggressor on the Khalkhin-Gol river—they are not idle today. For example, in great part due to the efforts of veterans, monuments have been dedicated to Soviet internationalists in Madrid, to the Spanish pilots who defended the Soviet Caucasus in 1942, in Kirovobad, Azerbaijan SSR, and to the heroes of Khalkhin-Gol and Chita. A group of internationalists/"Afghaners" is presently being formed. Why not unite also those who helped the peoples of Korea, China, Vietnam and Egypt? Many of them are already performing active educational and research work.

Take, for example, Sr Sgt (reserve) Nikolay Nikolayevich Kolesnik, who participated in the combat operations in Vietnam and is a member of the Central Directorate of the Society for Soviet-Vietnamese Friendship. He has visited the friendly nation twice and addressed the youth of Hanoi and Ho Chi Minh.

And what noble work Hero of the Soviet Union Konstantin Ilich Popov is engaged in! Soviet servicemen died defending the skies of Egypt in the summer of '70. They died and were forgotten. They were buried almost secretly. And now the former soldier/internationalist is beginning to identify the names of those who died fighting in Egypt and learning where they are buried. He has already ascertained that the twin brothers Ivan and Nikolay Dovganyuk rest in Odessa; Lt Sergey Sumin near Voronezh. "I want to go to their native parts and see

how their graves are being maintained," the veteran informs the editors. "Most important, however, I want to visit their families and the schools where the deceased soldiers studied, to tell about their participation in the rendering of international assistance."

The reserve soldiers themselves have defined the directions for the work. It is time to stimulate that work. Specifically, through the Soviet Committee of War Veterans, through other public organizations and through the press.

Review: Sorokin Book On Party-Political Work In Armed Forces

18010817 Moscow KRASNAYA ZVEZDA in Russian
22 Jun 89 First Edition p 2

[Review by Col. V. Malikov: "Experience of Renewal"]

[Text] I must say frankly that the new training manual released by Voenizdat, "Party Political Work in the USSR Armed Forces" (Edited by A. I. Sorokin, Moscow, Voenizdat, 1989) is reaching the units at a most appropriate time. Having incorporated the most precise specifications, clear and conceptually new precepts regarding the organization of ideological and party political work, and formed on the basis of positive processes in society and perestroika of the party and state, essentially this manual will be the first textbook for the political cadres of the Army and Navy. It is completely oriented toward tomorrow, for it allows for the prospects of development of social and political processes in the country.

The manual arms us with a modern conceptual apparatus developed under conditions of renewal of economic, social, political, and intellectual activity. It clearly and soundly demonstrates how the guiding role of the Communist Party in the life of Soviet society is growing under the new historical conditions, as the country encounters important tasks of internal development and in the international arena, and higher demands are placed on the level of its theoretical, organizational, and ideological work.

The manual reveals the basic trends in CPSU leadership of the Armed Forces: the elaboration and treatment of urgent problems of military theory and practice, questions of defense of the attainments of socialism, improvement of the organizational structure of the forces, organization and conduct of party political work among service members, and other urgent questions.

For example, the chapter dedicated to the strengthening of one-man command in the USSR Armed Forces examines the requirements imposed on the officer cadres under conditions of perestroika of the armed forces. It defines the trends of party political work to strengthen one-man command under conditions of democratism and openness. Special chapters are dedicated to political agencies, party and komsomol organizations of the Army and Navy, which are resolving questions of political

support of the work of the Armed Forces in a new way in the process of radical renewal of all spheres of life of Soviet society. The reader will find many examples of instructive experience in the book, as well as answers to questions about the substance of mass agitation work and organization and methods of cultural-educational activity.

Of particular interest is a special section dedicated to the history of the creation and development of political agencies. Behind the various changes in their functions and organic numbers and forms of work one can clearly see the constant aspiration of the party Central Committee to use the resources of political influence to support the high morale of personnel of the Army and Navy, and its selfless and active work to defend the attainments of socialism.

The training manual discusses the tasks and structure of the political agencies, political apparatus, and party and komsomol organizations, and reveals the main forms and methods of their work in light of the decisions of the 27th CPSU Congress and the 19th All-Union CPSU Conference. A special place is allocated to the primary party organizations, the most important questions of internal party life, and ideological practice under the new conditions, when the maintenance of high combat readiness is impossible without every sort of enhancement of the competence and responsibility of the military cadres for their assigned area, their ability to thoroughly analyze and carefully allow for the objective processes and phenomena of sociopolitical and Army and Navy life in their dialectical interrelations.

Party political work to strength military discipline and carry out the tasks of military service is a special question. A significant place is devoted to this in the manual—a separate chapter.

While noting the many merits of the book, I must say that unfortunately the authors did not succeed in avoiding errors in a number of places. They have poorly reflected the essence of the concept of perestroika of party political work in the Army and Navy, and the experience of the work of commanders, political agencies, and komsomol organizations under conditions of openness and glasnost. They have insufficiently demonstrated the characteristic features of forms and methods to unite the multinational military units, ways to eliminate unauthorized relations between service members, and improve the training and educational work of officers, warrant officers, sergeants, and petty officers.

But overall the training manual arms officers, political workers, all officer cadres, and cadets of military schools with a system of knowledge of the theoretical foundations of party development, the theory and practice of political, party organization, and ideological work in the Army and Navy.

Deputy Reacts To Military Aspects of Congress
18010816 Moscow KRASNAYA ZVEZDA in Russian
23 Jun 89 First Edition p 1

[Interview of Congress Deputy Sr Lt I. Shulgin by KZ correspondent Lt Col V. Kosarev: "It Was A Fine School Of Work"]

[Text]

[Kosarev] What was the most important thing at the Congress for you personally, and what do you recall most of all about it?

[Shulgin] The two weeks of the Congress went by in a flash. But at the same time, how eventful they were: the most intense discussions on the most important problems of the nation's life in the Congress hall and corridors, meetings in military units and workers collectives, participation in thousands of gatherings, heated arguments with the "unofficials"... I must say frankly: never in my life have my days been so full and so strenuous.

But if I must talk of the main thing, I believe it was first of all that this great conversation, so vital for each of us and for the whole country, took place. It was honest, at times unpleasant, but very important. We have waited a long time for it, decades.

Unfortunately, discussion of the problems of the Armed Forces was reduced chiefly to talks surrounding the April events in Tbilisi, the need for further reduction in military spending... Practically unmentioned were many social aspects in the Army and Navy, the quality of officer training, the facilities of military schools, i.e. the very factors that have to be changed radically, or it will be very difficult, perhaps impossible, to achieve improvement in the qualitative parameters of the Armed Forces under the conditions of their reduction. Many military deputies wanted to speak from the Congress podium on these important questions. I also prepared to speak, and I sent a note to the Presidium, but... I still think it would have been right to give the floor to some of us young officers. After all, it's one thing when a great military leader speaks, and something else entirely when it is a man from the bottom, so to speak.

[Kosarev] Now committees and commissions have been formed in the Supreme Soviet that are supposed to work in a planned and systematic manner to resolve problems raised at the Congress. What do you expect from the Committee for Defense and State Security Questions?

[Shulgin] Undoubtedly the sphere of its activity will be broad. But it seems to me that the committee should pay special attention to resolving those primary problems upon which depend the strengthening of the nation's defense and the safeguarding of its security, and to further developing and improving our Armed Forces and enhancing their qualitative parameters. I hope that the

committee will also keep within its field of view questions related to reduction of the Army and Navy in the context of ensuring the soundness of this reduction, military-strategic parity, and show concern for more efficient use of resources allocated for military construction, resolution of social questions in the Armed Forces, and first of all improvement in the everyday material situation of the service members and enhancement of the prestige of the Army in society. The committee can also do much to deepen the processes of perestroika in the Armed Forces, and democratization of Army life.

[Kosarev] The Congress was held in such a democratic atmosphere for the first time. This was noted by its participants, and the whole country looked on. At the same time, the authors of letters to the editor justly say that we still do not know how to use this democracy, they rebuke many deputies for low political culture, for the absence of discussion skills...

[Shulgin] That was indeed the case. In listening to speakers, in exchanging opinions with deputies, more than once I thought, as did the majority of us, I too was not ready for such scope, such depth, and most importantly, such openness of discussion of many problems addressed at the Congress.

I also clearly perceived the desire of some speakers to wax eloquent on the high rostrum, to score points against opponents. But mostly this did not affect me. I was bothered by the fact that there was not the unity one would expect among the deputies representing the Armed Forces. The notorious subordination could be felt even here. Junior officers were on their own, higher ones too, and generals remained generals, looking down on us from the heights of their position, cooling our ardor, our desire to speak out, to prove, to defend whatever the cost, with their composure and assurance.

Nevertheless there were many more positive emotions. I think I would not be wrong in saying that for every deputy (or more accurately, for every Soviet person, since the entire country from the low to the high took part in the work of the Congress) those days were a fine school of political work, a broad democratic discussion of the most important problems of our society's life. And I am sure that even at the next Congress of Peoples Deputies of the USSR this school will bear its fruit: we will be even more honest, even more frank, outspoken, and principled with one another, toward that which prevents us from living, from going forward on the path of perestroika, from expressing our opinion, and we shall look less at customary stereotypes. And we will be more objective and constructive. Our voters expect this of us.

Review of Soviet Assistance to Korea During War
18010820 Moscow KRASNAYA ZVEZDA in Russian
25 Jun 89 First Edition p 3

[Article by Lieutenant Colonel A. Dokuchayev under the rubric "The Time Has Come To Tell the Story": "It Was in Korea"]

[Text] Respected Editor!

I have been closely following the publications in KRASNAYA ZVEZDA on Soviet military aid to peoples who were subjected to foreign aggression. I read the articles "We Fought Too...", "That Egyptian Year," and "We Defended Vietnam Too," and I learned from them about the participation of Soviet troops in combat operations in Vietnam and in the Near East. I have heard that our troops also helped the people of Korea to repulse the American aggression in 1950-1953. Is this true?

[Signed] G. Dyachenko.

The 39th anniversary of the beginning of the war in Korea falls on 25 June. Until recently the general public had not been aware of the participation of Soviet soldier-internationalists in that war, and G. Dyachenko's letter is confirmation of that fact. Today, practically for the first time, we begin to draw aside the veil of secrecy surrounding this issue.

"For us, Korea was both a love and an anguish," relates Yevgeniy Georgiyevich Pepelyayev, former commander of an air regiment and Hero of the Soviet Union. "Back in the fifties we were defending North Korea, and we learned to care for the people of that ancient and eternally young country. We also felt love for the Chinese people, on whose land our regiments were stationed. But I lost friends there. Soviet pilots lie in the Russian cemetery at Port Arthur. I still remember those sorrowful moments when they buried my fellow servicemen, excellent pilots, my wingman Sasha Rozhkov, Fedya Shebanov..."

There had been armed clashes at the 38th parallel long before 25 June 1950, which is considered the formal date of the Korean War's beginning. On that day Army units of both sides came into contact. A meeting of the Security Council of the United Nations took place in New York, and there the U.S. representative accused the KNDR [People's Democratic Republic of Korea] of aggression against the South. The KNDR presented proof that the war was unleashed by South Korea. On 4 July 1950 the Soviet representative stated that the concept of aggression was not applicable in the case of a civil war between the various forces of a single country. Aggression can only be committed by a foreign state, the United States in this instance, which was interfering in the internal conflict in Korea.

On 27 June President Truman ordered that U.S. Army troops be sent to take part in combat operations against the KNDR, and in August they began bombing northern China too. As a result of this intervention, the USSR began to provide arms, ammunition, fuel, and food and medical supplies to the Korean People's Army and to the Chinese volunteers going to the aid of their neighbors. The Soviet government sent air divisions to provide air cover for important centers in northeastern China.

"In the middle of November 1950," recalls Korea veteran Boris Sergeyevich Abakumov, "winter had already completely set in and it was cold and snowy in the districts near Moscow. The first echelon with ground personnel and combat equipment was already underway when our 'lead craft' rumbled over the exit indicators. Ivan Nikitovich Kozhedub was in charge of the outgoing group of air crew members. We arrived at an airfield near Tungfeng, in Manchuria. The concrete airstrip with the various taxiways and the blast walls faced with jute bags filled with dirt testified to the seriousness of the work completed here recently by the Chinese comrades. The first-class building for the flight personnel also made an impression. After learning their way around the airfield, the pilots began to prepare for combat."

"The very first skirmishes in the air," relates Lieutenant General of Aviation G. Lobov, retired, former combined unit commander, "showed that the enemy's aircraft were less powerful in comparison to our MiG's, and the commanding general MacArthur had to report to the Chiefs of Staff that for the first time in Korea their pilots had encountered combat aircraft superior to the Americans', and that their morale was beginning to fall."

A fierce dogfight flared up in April 1951. Forty-eight American "superfortresses" (B-29 bombers) were racing to the bridge over the Yalu River. At that time basic assistance to the Koreans was moving across it from China and the USSR. The "superfortresses" were escorted by about 200 fighters. Our fighters flew from the airfields of Antung and Myau-Gou to meet them. Captain S. Kramarenko was among them.

"When the dogfight was at its height I attacked a group of fighters," says Sergey Makarovich Kramarenko, who returned from Korea a Hero of the Soviet Union. "The battle formation of the American aircraft broke up. I directed my jet to meet an oncoming 'Thunderjet' and opened on him with machine-gun fire. The aircraft began to emit smoke and started to fall. But then something happened... A second 'Thunderjet' was 'sitting on my tail.' I had to get clear of his fire instantly. I pulled the steering handle sharply to myself, and at that moment my jet went into a spin, something which had never happened before with jet-propelled aircraft. The G forces were tremendous, but I did not intend to abandon the jet. I managed to level it off, and the spiral fall came to an end. I again joined in single combat at the final stage. Our group downed three more aircraft. In a word, the 'star' raid did not come off. Four aircraft penetrated

to the bridge. And they were met by antiaircraft gunners and conducted their bombing inaccurately. The Americans were only able to damage one support. They launched a following daylight attack on the bridge only in August—they had lost too many aircraft. And after the next failure they stopped the daylight attacks altogether."

Soviet pilots not only provided cover for objectives in the border regions, but defended North Korean cities as well. As with every war, the Korean War was not fought without loss of human life and severe injury.

"In an air battle in May 1951 Senior Lieutenant Yevgeniy Stelmakh shot down a B-29 and set a second bomber on fire," relates G. Lobov. "But at that moment he himself was attacked. With a long burst, an F-86 destroyed the control rods of the elevator. Stelmakh ejected. He descended in a region where enemy raiding parties were operating. During the parachute descent the pilot was wounded three times. Stelmakh, bleeding to death, landed and joined a last, unequal battle. Firing off two pistol clips, he saved the last bullet for himself. He was posthumously awarded the title of Hero of the Soviet Union."

In one of his battles, Boris Sergeyevich Abakumov found himself in the gravest of situations.

"This happened in January 1952. The Americans had set a trap for us," he says, sharing his memories. "About 150 'Sabres' were waiting in a 'cone,' in a dead zone where our radar did not see them. They sent out six aircraft as bait, and we took it—eight MiG's ascended. It was the most difficult dogfight. I still cannot forget how the bullets drummed on the surface of the jet. I felt a strong blow to my left hand, which immediately became heavy. I tried to get out of the gunfire and made a maneuver. But I then was hit by armor-piercing incendiary bullets from another couple of enemy I had not seen. My instrument panel began to burn and the aircraft no longer responded—it was a sitting duck. The next burst hit me in the shoulder. A piercing pain ran through my whole body, and my jacket became wet with blood. Only one thing was left for me to do—eject. With my last strength I pressed the pedal of my chair. I fell from 12 kilometers. My oxygen mask was torn off, and my last strength left me—I began to lose consciousness. And, more mechanically than consciously, I pulled the ring. I fell a great distance in free fall, which improved my situation. Moreover, my oxygen mask, which had fallen under the parachute's harness straps, was dangling on my chest and apparently some of the air reached my lungs.

"I fell on my left side as I landed. My useless arm was thrown around behind my back, and I hit my head hard on a rock. I did not even have enough strength left to call anyone. In addition to my wound I had frostbite—I had ejected into minus 56 degrees. But I was lucky and some Korean peasants picked me up. At their fanza [peasant

home] they ripped open my shirt and I saw my mutilated shoulder with the bones protruding. My heart missed a beat: I could hardly call this thing hanging lifelessly an arm..."

In the skies of Korea the very best combat pilots came into contact face to face for the first time—Soviets and Americans. Who turned out to be the most professional, the most skillful in fighting? The capabilities of our MiG-15's and the American F-86 "Sabres" providing cover for bomber aircraft were about the same. Our fighters excelled at the vertical maneuver while the "Sabre" had superior speed in horizontal flight.

"In my view, first place in the Korean War goes to our aircraft," Boris Sergeyevich Abakumov relates his opinion, having studied combat aircraft in battle. "As soon as the MiG-15's began to operate in Korea, something unexpected happened: The 'flying fortresses' instantly lost their invulnerability. In the West they named the MiG-15 'the Korean surprise.' Three guns of great destructive force gave us superiority in armament. The MiG's speed of preparation for combat and its exceptional survivability were very impressive. Sometimes aircraft returned from battle with more than 100 bullet holes. Naturally, the Americans were interested in its secrets. They even scattered leaflets offering 100,000 dollars to the pilot who defected with a MiG-15."

"At the same time it must be noted," says Sergey Makarovich Kramarenko, "that the majority of American pilots who opposed us in Korea possessed great combat skill. Once I got into such a mess! Three 'Sabres' were in front of me. I shot one down. I thought, now the Americans will hesitate and fly away. But I had made a mistake. The two aircraft were already wheeling around behind me. I did three half-rolls and dived into a cloud to lose my pursuers. But the Americans did the very same. Because each maneuver required a tenfold acceleration I was soon completely exhausted. The Americans were in G-suits and it was, of course, easier for them. I made a last turn and set off in the direction of the Yalu River, beyond which was located our base. They broke off the pursuit only when the antiaircraft gunners opened fire on us, right in front of the wall of shell bursts..."

"It is interesting," says Yevgeniy Georgiyevich Pepe-lyayev, "that the American pilots rarely came to each other's assistance in combat, especially the lead plane to aid of the wingman. It seemed as though the wingmen were second-class people to them. It was as if they had no regard for collectivism. At the same time, the organization of their rescue service was well thought out and very impressive. I recall that in one battle that I shot down a 'Sabre,' which was able to land on its 'belly' on a bank near a river. As the Koreans were running to it, an American helicopter came flying up, picked up the pilot, and flew away to a nearby island. One could only envy the efficiency of their rescue service. Incidentally, they had set it up on islands all along the Korean coast. The

American pilots often steered their disabled aircraft in the direction of the sea, where they ejected or landed on their 'belly.' Then they were picked up there."

Having been deservedly repulsed by the Korean people, who were unanimously supported by the peoples of the socialist nations, the American command agreed on 10 July 1951 to negotiations for a cease-fire in Korea. It repeatedly disrupted the negotiations and launched offensive operations. However, the interventionists were repulsed each time. The resistance of the troops of the KPA [Korean People's Army] in the defense and the growing demand of world public opinion to put an end to the war led to the signing of a cease-fire agreement in Panmunjom on 27 July 1953.

Little was known of the participation of our forces in the Korean War. And when I asked Georgiy Ageyevich Lobov to talk about the nature of our assistance, I heard the following:

"It was completely justified. We were defending Korea from an aggressor. I am an aviator, and I am going to speak more about aviation. The 'flying fortresses' and the 'Thunderjets' were the principal American aircraft. These are aircraft of aggression. Do you know how many bombs they dropped? They dropped 700,000 bombs and

napalm. They barbarically wiped off the face of the earth cities and villages of that beautiful country. Nine million people died, and the majority of them were noncombatants. We brought only MiG's to Korea. And MiG's are fighter aircraft, defensive weapons... My memoirs are going to be published in VOYENNO-ISTORICHESKIY ZHURNAL, and this idea will run all through them."

To what Georgiy Ageyevich has already said, I will add that our advisors were present in the Korean People's Army. A Soviet military hospital was established under the aegis of the Red Cross. Communications personnel from the Soviet Union provided the newest communications system.

The Soviet troops left Korea with the feeling of having fulfilled a duty. For them, the Korean War was an important landmark in life, an event they would never forget. And the wounds are still there as reminders. On his arrival in the homeland, Boris Sergeyevich Abakumov had to receive much more medical treatment. His last operation, more or less successful, was in January 1975. Boris Sergeyevich did not give up: He worked steadily and even was able to learn to fly a glider. He regretted, perhaps, one thing. In the course of almost 40 years, not a word was said about him and his comrades.

Conference of Chiefs of Political Directorates

*18010859 Moscow KRASNAYA ZVEZDA in Russian
20 May 89 Second Edition p 1*

[Unattributed: "Conference of the Chiefs of the Main Political Directorates of the Armies of the Warsaw Treaty Member States".]

[Excerpt] From 17 to 19 May a conference of the chiefs of the main political directorates of the Warsaw Treaty member-states took place.

The following participated in its work: Chief of the Main Political Directorate of the Bulgarian People's Army Colonel-General M. Mitkov, Chief of the Main Political Directorate of the Hungarian People's Army and Deputy Minister of Defense of the Hungarian People's Republic Major-General L. Krasnai, Deputy Minister of National Defense and Chief of the Main Political Directorate of the National People's of the German Democratic Republic Colonel-General Kh. Bryunner, First Deputy Chief of

the Main Political Directorate of the Polish Armed Forces Vice Admiral D. Petre, Deputy Secretary of the Higher Political Council of the Army of the Socialist Republic of Romania Rear Admiral D. Petre, Chief of the Main Political Directorate of the Soviet Army and Navy General of the Army A.D. Lizichev, Chief of the Main Political Directorate of the Czechoslovak People's Army Colonel-General Ya. Klikha.

Upon arrival in Hungary the chiefs of the delegations were received by the General Secretary of the Hungarian Socialist Workers' Party K. Grosz.

At the conference a broad exchange of opinions and experience on pressing problems of political and ideological work in the allied armies on the realization of defense tasks put forward in the decisions and the congresses and conferences of the fraternal parties.

[Passgae omitted].

Decree on Changes to Law on Universal Military Obligation

18010802b Moscow *VEDOMOSTI VERKHOVNOGO SOVETA SOYUZA SOVETSKIKH SOTSIALISTICHESKIKH RESPUBLIK in Russian*
No 15 (2505) 12 Apr 89 p 108

[Ukase of the Presidium of the USSR Supreme Soviet, No. 108, on Incorporating Amendments in the USSR Law "Governing Universal Military Service"]

[Text] The Presidium of the USSR Supreme Soviet decrees:

1. To incorporate in the USSR Law of 12 October 1967 "On Universal Military Service" (*VEDOMOSTI VERKHOVNOGO SOVETA SSSR*, No 42, 1967, Article 552; No 52, 1980, Article 1121) the following amendments:

1) Article 13 is to read in the following wording:

"Article 13. The lengths of active military service are to be set as follows:

"1) For soldiers and sergeants of the Soviet Army, shore units and aviation of the Navy—2 years;

"2) For seamen and petty officers of ships, vessels and shore units for the combat support of the Navy—3 years;

"3) For soldiers, seamen, sergeants and petty officers having a higher education—1 year.

"The procedure for standing active regular military service by soldiers, seamen, sergeants and petty officers is to be determined by the USSR minister of defense in accord with the current law";

2) Point 2 of Article 35 is to have the following wording:

"1) For students of daytime (full time) institutions of higher learning. Persons expelled from institutions of higher learning for poor grades, a lack of desire to study or for lack of discipline lose their right to a second deferment for continuing their education";

3) Article 44 is to have the following wording:

"Article 44. Soldiers, seamen, sergeants and petty officers who have a higher or secondary education, who have undergone training courses and have passed the stipulated exams before completing active military service, upon discharge into the reserve, are to be awarded an officer rank. The dates and procedure for the taking of exams are set by the USSR minister of defense.

"Persons who upon discharge into the reserves have not been awarded officer rank can enroll in reservist training courses for training as reserve officers."

2. The USSR Council of Ministers is to be instructed to review the questions stemming from the current ukase and in necessity submit proposals to the Presidium of the USSR Supreme Soviet.

Chairman of the Presidium
of the USSR Supreme Soviet
M. Gorbachev

Secretary of the Presidium
of the USSR Supreme Soviet
T. Menteshashvili

Moscow, the Kremlin,
10 April 1989
No 10290-XI

Interview with New Commander of Turkestan MD
18010827 Tashkent *PRAVDA VOSTOKA in Russian*
17 May 89 p 3

[Interview with Colonel General I.V. Fuzhenko by V. Shapovalov: "On the March of Perestroika"]

[Text]

[Shapovalov] Ivan Vasilevich, you became the commander of the Red Banner Turkestan Military District at the beginning of the year. You have been elected a USSR Peoples Deputy. You just recently became a Colonel General. I think our readers would like to know you a little better.

[Fuzhenko] I have a normal military biography. I graduated from a military school in Odessa and from two military academies in Moscow—the Military Academy imeni M.V. Frunze and the General Staff Academy. My younger brother and son are also servicemen. Incidentally, my son is a student at that same Military Academy imeni M.V. Frunze. I myself have commanded a platoon in the Group of Soviet Forces in Germany, a company and a battalion in the Transcaucasus Military District, and a regiment and a division in the Belorussian Military District. I was deputy and first deputy chief of staff of a military district headquarters. I fulfilled my international duty in Afghanistan. I returned to the GDR [German Democratic Republic] as first deputy commander in chief of the Group of Soviet Forces in Germany. In 1988 I was assigned as Turkestan Military District first deputy commander in chief and became commander in chief in January 1989.

[Shapovalov] Now are you continuing the restructuring begun in the district and are you involved with troop reductions in accordance with the well-known decree of the Presidium of the USSR Supreme Soviet?

[Fuzhenko] Well, not by myself, of course. We have a strong staff, District Military Council, and Political Directorate. Each serves conscientiously in its own sector. Working on perestroika, we will strive to implement

the party's resolutions in practice on increasing qualitative parameters in regard to weaponry, equipment, military science, and also personnel. This will allow us to totally carry out our defensive doctrine which, as you know, proceeds from the inadmissibility of wars and which is the foundation of the principle of defensive sufficiency. This is reflected in the life and activities of our military district's forces which reliably ensure the inviolability of the USSR's southern borders. Training of command and political cadres, staffs, training and education of servicemen, and party political work are being conducted in a defensive spirit. Personnel have begun to become involved with new combat training programs and are more thoroughly working through the issues of conducting defensive battle. Training facilities are being improved. In particular, an environment conforming to the conduct of defensive battle has been created for tanks, BMP's [Infantry Fighting Vehicles], BTR's [Armored Personnel Carriers], and small arms.

[Shapovalov] The implementation period of the Decree "On USSR Armed Forces Reductions" encompasses the period from 1989 to 1991. Have any stages been defined for the Turkestan Military District?

[Fuzhenko] The main paths have been defined. First of all, officers, warrant officers, and extended-service military personnel who have attained the age limits and are eligible for a pension are subject to reduction. Officers called up from the reserve for two to three years will be also among the first to be transferred [to the reserve or retired]. Warrant officers will be transferred from officer positions. And of course, people who are discrediting the high rank of officer will not remain. Effectiveness reports are being completed in the forces right now in order to objectively determine the fate of each individual and to not allow the slightest violation of the principles of social justice.

[Shapovalov] Ivan Vasilevich, do you not sense a bit of a pacifist mood in connection the Army reductions?

[Fuzhenko] They can make as many hasty judgments and conclusions as they would like. Someone is quite seriously proposing reduction of the Army by half and even replacing combat units with some sort of territorial formations. Such moods are possessed by people who did not understand the All-Union 14th Party Conference resolutions on qualitative parameters of our military organizational development. The primary mission of Army and Navy servicemen is to maintain an undiminished level of combat readiness even during [Armed Forces] reductions. Right now, it is still early to be talking about the disappearance of a military threat. The nature of capitalism is undergoing changes but we have still not succeeded in blocking its aggressive impulses. People called upon to ensure the Nation's security simply do not have the right to forget about this. Today, life requires us to find and use all opportunities to counteract the military threat on a broader political basis than before. Realizing this party line, we should not resort to

extremes and side with the positions of those who are not averse to bewildering us with "ideas" of disbanding the Armed Forces, reducing the term of service in the Army, etc.

[Shapovalov] Does that mean that the problems of training young people for military service and the quality of training in military schools on the district's territory are not being removed from the agenda?

[Fuzhenko] They are not only not being removed but they are also acquiring new aspects although it is also because we are undergoing changes in conscripting student youth who are better prepared for mastering military skills. The district's higher level military educational institutions are tasked with making a substantial contribution in increasing the qualitative defense potential. Professors and future officers, tempered in the Turkestan Military District, will serve at them. Many valiantly fulfilled their duty in Afghanistan.

We are giving due consideration to the fact that a future officer knows how to operate independently in inter-ethnic collectives, is a good teacher, and has an impact on consolidating military discipline. Much is now being said about "dedovshchina" [hazing of conscripts] in the Army. It exists but I have to say it is a throwback to that social injustice which young people run into in civilian life. The new replenishment of officers will definitely end that.

Another direction in the work of military schools is establishment of their own teaching methods schools with their traditions and rich advanced experience with students and successors. Today, professors are using problem methods of instruction. For example, at TVOKU [Turkestan Military District Instructor School] imeni V.I. Lenin, they are boldly experimenting in this direction and are not avoiding intense dialogues and discussions. The main thing today is to breathe new life into proven forms of work and to introduce new content for restructuring the Army. The training which has begun in the district's schools for transitioning to new programs is promoting this.

The significance of training at military departments of civilian VUZ's is also growing. The nation's defense potential depends on reserve officers to a great degree.

As for training young people for military service, it was somewhat qualitatively improved through the joint efforts of party and government agencies, people's education and public health agencies, public organizations, military commissariats and military units. However, a radical turning point has not occurred. Our lads are poorly prepared in physical fitness and in basic military training. Schools are devoting insufficient attention to improving teachers and to increasing the qualifications of military leaders. Leniency frequently occurs while setting the GTO [Prepared for Labor and Defense of the USSR] standards at schools and they are poorly training

specialists for the Armed Forces at vocational training schools and at DOSAAF organizations. There has not been substantial improvement in medical-sanitary work among young people of conscription age. The issue of creating defense-athletic health camps has not been resolved.

Preparation of young people for military service is a state matter and it must be dealt with from party positions and with personal responsibility.

[Shapovalov] It is obvious that military district commander contacts with local party and government agencies are important here.

[Fuzhenko] Not only in this matter. Ties between the Military Council, Political Directorate, commanders, political agencies, headquarters and Uzbekistan and Turkmeniya party organizations have become much closer during the years of perestroika. R.N. Nishanov and S.A. Niyazov, first secretaries of the Communist Parties of Uzbekistan and Turkmeniya, constantly participate in the work of the District Military Council. Many servicemen have been elected to local party and government agencies. Regional meetings with the participation of party and government workers, commanders, and political workers have become traditional. Issues of increasing force combat readiness, training young people for service in the Army, providing everything needed to garrisons, housing construction, and other issues are being decided in close cooperation. Of course, they envision aid which the district's troops render to the population during natural disasters and catastrophes.

[Shapovalov] The feeling of internationalism is important in all of this. How is it being fostered among the district's servicemen?

[Fuzhenko] Vladimir Ilich Lenin had already thoroughly substantiated the inter-ethnic nature of the defense of the Socialist Fatherland and discovered the inter-ethnic nature of the Soviet Armed Forces. Traditions of internationalism were clearly manifested by the Turkmens who fulfilled their international duty in Afghanistan. Their example is always at the center of international education. I will not describe how lectures, conversations, and ten day festivals under the motto "In the Family of Equal Republics of the Free," and joint seminars of civilian young people and servicemen are conducted in this regard. I will only say that military units' ties with enterprises, sovkhozes and kolkhozes, educational institutions have received broad development. The District Military Council and Political Directorate are doing everything to carry out the demands of the 19th CPSU Conference—to make service in the Armed Forces a genuine school of internationalism.

[Shapovalov] You talked about the war in Afghanistan. What is your attitude toward it?

[Fuzhenko] I was in that war and I have military decorations. But what can my attitude toward the war be? The war should not have occurred. The essence of Soviet military doctrine is precisely contained in not allowing wars to be unleashed. The war in Afghanistan is continuing even after withdrawal of the Soviet troop contingent and it has acquired a new intensity. Obviously you are interested in my attitude toward participation of Soviet servicemen in this war and to the very introduction of a limited contingent of our forces into Afghanistan? The question is complicated and there can be no simple answer. The Soviet and Afghan leadership arrived at the joint conclusion that there is no military solution to the Afghan problem. The answer to the question is also contained in this. But not the whole answer. Can one really forget that thousands of Soviet people, while fulfilling their international duty in Afghanistan and having manifested loyalty to the oath, were models of heroism and courage? Every fourth serviceman received state decorations and more than 60 men received the title of Hero of the Soviet Union.

Politicians and historians need time to grasp the fact of our forces participation in Afghan events and give it an objective evaluation. But as a participant in these events, I can say that the sphere of Soviet-Afghan cooperation and collaboration never limited our military presence in Afghanistan. Economic and socio-cultural assistance has been rendered to the republic both during our forces' sojourn in that country and even now after their withdrawal. It comes from the union republics including from the Uzbek SSR, major industrial centers, and individual ministries and enterprises. It is necessary that other countries which signed the Geneva Accords arrive at the only correct conclusion that the Afghan problem cannot be resolved by military means.

Here I must talk about our indignation by attempts to place the soldier-internationalists' heroic feats in doubt. Do we have to demonstrate that no one in our nation would intolerably cast a slur upon loyalty to his military oath, our military and international traditions, and belittle the constitutional duty—to defend the Motherland and the ideals of socialist internationalism?

[Shapovalov] How do you, as a USSR Peoples Deputy from the Surkhandarya Oblast which borders Afghanistan, see future mutual relations with Afghanistan?

[Fuzhenko] The revolutionary people, in spite of provocative Western mass media predictions, confirmed their resolve to defend the gains of the April Revolution even after withdrawal of our forces. The situation there is complicated. Pakistan's interference is one of the causes of the continuing bloodshed. I have already spoken about current economic assistance to the embattled people. The workers of Surkhandarya are also rendering assistance. These ties will be developed and deepened. The situation on the Soviet-Afghan border is normal and is not causing any concern. As a USSR Peoples Deputy, I will persistently implement the peace-loving principles

of Soviet Foreign Policy which are directed at maintaining a non-aligned, sovereign, and friendly Afghanistan on our nation's southern border.

[Shapovalov] Is this the main point of your program as deputy?

[Fuzhenko] Let us put it this way, one of the first points of my pre-election platform was: "Reliable Security for the Southern Borders of the USSR." And this is an extensive program. To struggle for perestroika and democratization of Army life, to consolidate cooperation with party and government agencies, to activate military-patriotic and international education of young people, and to improve the work for selection of young people of local nationalities for entry into military higher educational institutions, to devote constant attention to veterans of war and soldier-internationalists, and to strive to introduce changes to draft legislation which will more fully take into account the interests of the region's workers and all nations and nationalities which populate it. I will be involved with economic and ecological issues.

[Shapovalov] With time, the voters will themselves form an impression of the effectiveness of your platform and about the fulfillment of their mandate. And right now we would like to know the means for realizing that portion of the deputy program which directly affects your activities as Turkestan Military District commander in chief?

[Fuzhenko] I am doing everything possible so that the district's forces become stronger and a reliable outpost remains on our Nation's southern borders as a result of reforms being carried out in the Army. At the same time, I see the main goal in democratization and in expanding people's personal responsibility in the struggle with bureaucracy.

To develop democracy in the Army means to ensure servicemen's full political and civil rights. This is to rigorously carry out the demands of the Constitution, laws of the USSR, the oath, and regulations and support the authority of one-man command in every possible way, but at the same time to also increase the activities of party, Komsomol, trade union, and other election agencies in strengthening the spiritual proximity of commander and subordinate, officer and soldier. And, of course, to comply with the principles of social justice at all levels.

Today life for the District's personnel is marked by the ever greater total discovery of the creative potential of party and Komsomol organizations which make up the political nucleus of military collectives. Thus, political agencies received an evaluation of their activities at party conferences as it is done at rayon and oblast party conferences. Now all commanders and deputy commanders for political affairs, despite service position, are

responsible to primary party organizations. The report-back election campaign demonstrated a growing exactingness toward communist servicemen. There are examples of party collectives' expressing a vote of no-confidence in their secretaries, bureaus, and party committees.

Permanently operating evaluation commissions have been formed in all military units which are democratically resolving issues associated with advancement, transfers, cadre awards, and bestowing the next higher military rank.

Now many young communists—soldiers, sergeants, warrant officers, and junior officers—have been elected to party committees and bureaus. They are introducing more glasnost into the collective's activities. Perestroika removed many obsolete limitations in the activities of the Army Komsomol. "Soldier's acceleration," marksmanship movement, competition for the effectiveness of Komsomol activities, and other initiatives are evidence of this.

We are increasing the legal education of our cadre and of all Turkestan servicemen.

The military press is helping in the struggle with carriers of bureaucracy. The Military Council approved an initiative of the FRUNZEVETS Military District Newspaper on "Direct Line" articles, incidentally along with your newspaper. We are orienting military journalists so that they more clearly and thoroughly write material about the honor, dignity, decency, and generosity of servicemen and about inter-ethnic friendship of servicemen without smoothing over the "rough edges" in Army life. There are many problems in Army life. Certain officers lack a deep knowledge of their profession, initiative, and responsibility. Efforts are required in restructuring the apparatus for implementing control functions. Substantial changes in attitudes toward people, their living conditions, life style, and formation of a new spiritual atmosphere in military collectives are signs of qualitative changes in the District's forces and this is also directly involved with my duties as deputy.

[Shapovalov] You are resolving many problems through the military press. And what is the commander in chief's attitude toward the civilian press?

[Fuzhenko] I was a delegate to the 27th CPSU Congress. The press was rightly called the platform of perestroika, democracy, and glasnost. It also has an important role in restructuring the Soviet Armed Forces and in implementing CPSU and Soviet government policy in the areas of the nation's defense and security. Today, all mass media attention to the problems of military organizational development is appropriate: The Army is a part of society and the processes for its renewal are attracting the people's natural interest. I think my conversation with you today is a result of precisely such interest. I want to wish PRAVDA VOSTOKA success in

everything, including covering military themes, and especially problems of military-patriotic education of young people, their preparation for service in the Army, and demonstration of the real life of Army collectives.

[Shapovalov] And we wish you success as military district commander in chief and in carrying out your duties as a USSR Peoples Deputy.

Housing Problems Face Servicemen Subject to Troop Cuts

18010802a Moscow KRASNAYA ZVEZDA in Russian
3 Jun 89 First Edition p 4

[Article by Ye. Agapova, KRASNAYA ZVEZDA correspondent and member of the Soviet Women's Committee: "Everything Is Clear About the Tanks But What About the People?"]

[Text] Our newspaper has already announced the establishing in the country of the Public Observation Group for the Reduction of the Soviet Armed Forces and Weapons (GON). Its members include activists from public organizations, USSR people's deputies, scientists.... Recently, a regular group returned from the GDR where they had begun withdrawing the 25th and 32d Guards Tank Divisions into the Soviet Union. A KRASNAYA ZVEZDA correspondent was also a member of the GON and we today publish her comments.

Before our departure for the GDR, a colleague, a military correspondent, asked me not without some irony: "And just how do you intend to observe the reduction, will you count the tanks?..."

I must admit that at that time I myself had a hazy notion of this new role of the public observer of the reduction in the Armed Forces. Military observers are one thing. But what about the GON? Yesterday the idea of establishing it would have seemed absurd. Our relations between the army and the public were so regulated. And the argument seemed so rigid: defenses and everything related to it is an off-limits sphere. This concerns only the military department and civilians are not to delve into its affairs.

But times change. And the view of society has changed about the departmental exclusiveness and the excessive secrecy.

On these questions there should be no room for fabrications and rumors. One of the tasks of the GON is to help the public understand how the reduction in the Armed Forces is being carried out. All of this is very important because the unilateral initiative makes no provision for international supervision. But this is only a part of the questions to which the GON intended to obtain answers.

It is equally important to answer the questions: To what socioeconomic consequences does the reduction lead? What will it entail for the specific human fate?

A clear, morally forthright decision has been taken. It shows the world our true human and civil face. The servicemen have also responded with understanding to the peace initiative and it is their fate that it has involved or will soon involve. A portion of them, some 97,000 officers, will be discharged. The remainder will continue serving in interior districts in line with the withdrawal. But inevitably they and others are confronted by one question: Where will they live in the new area? The situation with housing for officers discharged into the reserves is well known. It is flagrant. The dates set by the government are not kept. Can it be assumed that in a single instant they will be able to build housing for that enormous army of people who are confronted with the breaking up and reorganizing of the units? The "best" variation is temporary houses and barracks redone as dormitories.

The Commander-in-Chief of the Group of Forces, Army Gen V. Snetkov, described to us the plan for the troop withdrawal. Many details have been spelled out in it. Family interests have also been taken into account. In particular, the departure dates have been changed for those whose children are completing 10th grade. The passing exams from grade to grade and so forth have been cancelled. Contact has been established with the local authorities in those areas where the divisions are to move. All ranks of commanders and political workers are doing explanatory work with the people. But yet many women with whom we met had a very hazy notion of what awaited them at the new spot. This is natural. Because no plan, no matter how carefully it is drawn up, can give answers to all the questions. A plan is abstract and life is concrete. And it, this life, forces a person at times into a blind alley and into the most unpredictable human situations.

The preferable answer for an officer's wife today would be to travel with the children to the parents. And live there until better times, until the husband has received an assignment and a roof over their heads. But how long could this last? No one can say for sure. They all have different answers. An officer has been given the right for a year to be off the TOE. But even now it is clear that an officer's wife in such a situation is doomed to conditions which run contrary to justness. She can be caught up in the well-known circle of formalities from which it is at times impossible to break out. First, there is no pass. And hence, secondly, there is the question of work. And the third circumstance is very disturbing as the child and the mother remain unprovided for. And how many such families in the near future will fall under the tracks of the unstoppable bureaucratic tank?

But while proximity to relatives can to some degree dull the alarming concerns, what happens to those families who do not have parents or kind relatives? There remains just one thing to do: to go with the husband to a new disordered life placating oneself with the notion that everything material is of no account.

Guards Lt Col V. Vasilyev, the commander of a tank regiment, like many in the Union, does not have reserved housing. The family has two children and the wife works as a nurse. Incidentally, their regiment does have housing in the homeland, but in his words, for not more than 30 families out of 200.

There are units where up to 70 percent of the families do not have a roof over their heads in the Soviet Union....

Upon my return to Moscow I telephoned Officer V. Andreyuk, the political worker of the unit where the tank troops were to be withdrawn. Vladimir Nikolayevich [Andreyuk] related that they had redone the barracks as a family dormitory. The local authorities had not yet provided apartments with amenities. But places had been reserved in the dormitory with a payment, according to preliminary data, of 4 rubles, 30 kopecks per family member. Some 32 of their own officers were still on the waiting list for apartments. As for jobs for women, the situation was difficult as it was a mining town with all the ensuing consequences. There were two schools but they were overcrowded.

Then followed a conversation with the first secretary of the party gorkom Aleksey Yakovlevich Korsakov. We again did not hear any particular optimism in his voice: The town in ecological terms was far from good. Some 7,000 families were waiting for housing. They were building 37,000 m² a year. How long would they wait? Ten years....

In this context I cannot help but recall the solemn speeches and the fine ritual of bidding farewell to our trains from Jutrbog and Prenzlau.... And the forthright words about attention to each person. Here I constantly am thinking about those persons who under enormous stress are to move from a well-organized life to a primitive one and not out of mere whim. That mistrust of perestroika is directly proportional to the number of facts of social abandonment. And in certain instances will we not tomorrow have to draw an analogy with the year 1960, when some 1.2 million servicemen were subject to a cutback? Certainly the echo of the social insults has still not died out in many.

Everything is fine with the tanks. But what about the many people whose trust and patience are not infinite? I am perfectly aware that these are all emotions. And what is needed is laws which will securely protect the military man from a hard life. Logic and common sense suggest that precisely for the sake of such a humane action human fates are to be broken and people placed in such a dependence on the harshness of life not at their own whim, then society should be concerned ahead of time for these very people. And not just about temporary housing and dormitories. But again this is the ether, the oscillation of air. What is needed is concrete actions.

I recall a strictly nonmilitary person, Ella Aleksandrovna Pamfilova, a USSR people's deputy and now elected to the Council of Union, was constantly amazed on this trip: Why in the army were the women and children belittled? Certainly they had not taken vows to endure such hardships....

And actually why? Possibly, out of the old habit of coldly considering human conveniences last. Possibly. Or maybe for the sake of considerations of a higher order, for instance, combat readiness? But we still are constantly repeating the well-known truth that combat readiness runs at present not only through the tank firing range but also through the family of the military man.

These notes are not the importunate recalling of rudimentary truths. Nor are they a desire to attack anyone or expose anyone. At present when it is constantly being bandied about that the military live without a care in the world, there must be a sober understanding of the actual state of affairs. Incidentally, the GON reached an unanimous opinion that all of these problems do not fit in the strictly departmental framework of the Ministry of Defense. Like the reduction in the Armed Forces and weapons this is not a departmental action. These are our common problems and the army alone will not resolve them. The GON plans to conduct a careful analysis of the situation and submit specific proposals to the commissions of the USSR Supreme Soviet which will be concerned with the questions of defense as well as to the USSR Council of Ministers.

...My journalist colleague was not in error: I actually did count the tanks when they were loaded on flatcars for dispatch. Our figures, I would point out, did not differ from those which were timely made available to the Group by the General Staff. Precisely this organization provided the GON with all possible assistance in its work.

Latvian Students Can Postpone Military Service
18080063 Riga PADOMJU JAUNATNE in Latvian
7 Jun 89 p 1

[Article by Major General J. Duda, Latvian SSR Enlistment Officer, and A. Builis, Latvian SSR Education Minister: "On the Conscription of Secondary School Graduates Into Military Service"]

[Text] Recently the republic's party and Soviet organs, the Ministry of Education, and the Latvian SSR Enlistment Office have received many letters and phone calls from citizens, parents of new recruits, who complain that secondary school graduates are being drafted into active military service, thereby they are being denied the right to enroll in institutions of higher education.

In this regard we explain that with the aim of giving youths the chance to enroll in higher education institutions, the rayon enlistment offices were already told

before the start of spring to process conscription questions of secondary school graduates very individually, taking into account their own wishes. We must add that in previous years the situation was the same.

Once drafting has begun, new recruits—graduates of secondary schools—are invited to the rayon (city) military registration and enlistment office, where their desires to enroll in an institution of higher education are clarified.

For youths who wish to enroll in college drafting into active military service is postponed to the fall.

Thus, for example, according to the calculations of the republic's enlistment offices, there are currently 1,692 young men who have finished secondary school institutions with Latvian as the language of instruction and who are eligible for drafting into active military service.

In the spring of 1989 only 57 of these youths (3.36 percent) are being called up, with their own consent.

This number is very insignificant and cannot serve as a pretext for sharp discussions.

In accordance with Paragraph 35.1 of the USSR law "On General Conscription," the enlistment date for young men who enroll in universities will be postponed until the completion of studies.

Troop Reduction Effect on Training Assessed
18010716 Moscow KRASNAYA ZVEZDA in Russian
14 Jun 89 First Edition p 1

[Interview with Lt Gen A. Golovnev, first deputy commander of the Moscow Military District, by Lt Col A. Oliynik: "Such a Dynamic Life...."]

[Text] The Army and Navy are presently analyzing the results of the completed winter training period. In strictly assessing what has been done, the organizers of military and political training are naturally concerned with seeking out vital ways which to the greatest degree correspond to the requirements of today for increasing the skills of the personnel and for strengthening discipline and organization. A KRASNAYA ZVEZDA correspondent asked the First Deputy Commander of the Moscow Military District, Lt Gen A. Golovnev, to share his thoughts on this question.

[Oliynik] One of the main features in the previous training period was certainly that it coincided with the start of the work undertaken to reduce our Armed Forces. Did this leave any impression on the organization of the training process or its results?

[Golovnev] The troop reduction outlined in accord with the new military doctrine and their organization and establishment and training of course left an imprint on all aspects of our life. A large number of officer positions

is to be reduced. Several units, including tank ones, are to become, we already know, depots for the storage of equipment and weapons. Undoubtedly all of this work requires time and energy.

But the main thing still remains the main thing and that is the skills of the troops and the combat readiness of the formations and units. As a whole, the inspection has shown that our personnel see their primary concern under the conditions of a cutback in the army precisely in improving the quality of military service and achieving a level of combat readiness which will make it possible to carry out the tasks with fewer forces. And where they have actually been concerned, for instance, with tactics questions under conditions close to combat, in the final exercises they have demonstrated high field skills. This we have seen, in particular, in a number of units and subunits from the Guards Motorized Rifle Taman Division, where the commission has been headed by the district commander, Col Gen N. Kalinin. Here there have been tangible changes in weapons, tactical training and in driving combat vehicles.... This can also be said about a majority of those formations and units which in mid-April participated in troop exercises.

What has been said, certainly, does not mean that we do not have any problems in the restructuring [perestroyka] of combat training. In getting ready for the summer training period, we are now making every effort to bring about an acceleration in increasing the quality of personnel skills.

[Oliynik] In this context, clearly, also indispensable is a restructuring in the style of managing combat training and in particular organizing supervision over its course?

[Golovnev] Undoubtedly. Even in the previous training period we reduced the number of various inspectors and commissions, including at the final exercises. In accord with the demands of the minister of defense, at present each unit, as a rule, is inspected by a superior staff once in the training year. In a word, the emphasis has been put on the independence of all levels of commanders.

The content of the work done by the commissions has also changed. They now not only determine the degree of combat readiness and training of the personnel, the state of the services, and assess the life and routine of the units and formations but also help immediately in eliminating the disclosed shortcomings. For example, in conducting company tactical exercises with field firing in the Taman Division, officers from the staff and headquarters of the district helped the subunit commanders in working out the required documents and in preparing the men, equipment and weapons for combat employment. Naturally, this was done only where our help was actually required. Thus, in a number of instances we have been able to some degree to bring up the laggards and make the most rational work methods available to all. In

considering that an entire training period still lies ahead of us, we do have an opportunity to completely eliminate many shortcomings and solve arising problems.

[Oliynik] The skill level of the personnel, like all the organization of combat training, to a large degree depends, as is known, upon the clarity and completeness of the guiding documents. What in this sense can be said, for example, about the new combat training program?

[Golovnev] It must be said that as a whole the new program considers the increased demands on the organization of training, particularly on the company—battalion level. It is a good thing that the commanders have been granted greater independence in planning and conducting the exercises, including to the point of changing the subject and the number of hours spent working out one or another question. At present, when the question of the priority of quality parameters in military affairs is so acute, this is of fundamental significance.

At the same time, our life is so dynamic that at present not everything is to our liking in the new program. In particular, it does not consider the new organizational structures which are arising now in the troop reduction. In the program there is no clear demarcation in the scope of the subjects on combat training and the dependence on the number of personnel. The insufficient concreteness in defining the questions worked out employing the equipment of course to some degree contributes to a situation where certain commanders simplify drills to a maximum and conduct a majority of the battlefield drill exercises by the "walk-through" method without using the equipment.

As yet we are still not obtaining everything from the trips planned by the program to the training center. Seemingly this would be a good thing for improving the field skills of the troops. However, as experience shows, with the available fleet of training equipment and other training facilities, it is not possible everywhere to properly support such trips. For this reason the battalion trips are often conducted in a formal manner or not at all.

In the program an important place has been given to physical training and drilling. It must be said that serious attention is paid to these questions in the district troops. The officers from the district combat training directorate alone conducted 19 instructor-procedural exercises which were attended by 1,000 officers and sergeants. It was precisely the increased level of procedural skills in a majority of the leaders which, in my view, above all was felt in the promising, let us say, results of the final inspection. This was also aided by the well equipped gymnastic centers and sports corners. At present, we are working to have sports corners in each barracks. We make it a practice to hold morning physical conditioning in the form of a morning drill lasting up to 1 hour. Incidentally, in certain military schools this practice has already been tested out and is bringing good results.

Unfortunately, the final exercises also showed that physical and drill training are still not considered everywhere disciplines of prime importance. Among certain commanders and superiors, as before the level of the procedural training in these disciplines is very poor. And often they themselves are incapable of demonstrating one or another exercise on gym equipment or execute a drill procedure in an exemplary manner.

In a word, ahead lies much work which requires from the commanders and staffs both a theoretical analysis of the results of the winter training as well as concrete practical steps to restructure combat training.

Sergeant Accuses Ministry Of Non-Use Of Afghan Experience

*18010809 Moscow KRASNAYA ZVEZDA in Russian
18 Jun 89 First Edition p 2*

[Article by Sergeant O. Prisyazhnyuk: "Reader Poses A Question: There Can Be No More Delay"]

[Text] Military Institute—I'm probably being insubordinate, but can't help but reproach the USSR Ministry of Defense: It seems to me that the ministry is doing by no means all it could to preserve the combat experience gained during the war in Afghanistan and to make maximum use of that experience in the interests of the Armed Forces. To what do I refer? A unique situation now exists in the country: Among our young people are tens if not hundreds of thousands of youths who served in Afghanistan and who are trying to find their place in life. It can be a difficult and agonizing experience, one accompanied by a feeling that they cannot fully utilize the knowledge, skills, combat experience, and psychological maturity they have acquired. Only a relatively insignificant number of them find a means of self-expression, such as working in military-patriotic clubs and councils and other informal associations. I don't doubt that they will all eventually establish themselves, find jobs to their liking, and acquire interesting specialties. But their combat experience will go with them, never to be utilized. Meanwhile, there are precious few Afghan war veterans where that combat experience is needed like air, where it could become even more valuable with each passing year, and where it could serve for many years to come to train personnel and enhance combat readiness—namely, among service school cadets.

While our troops were in Afghanistan, few soldiers and sergeants were able to enroll in higher military schools. Conditions did not always allow, and more importantly, a spirit of combat unity played a considerable role. Among those of us who served in Afghanistan, leaving one's comrades and returning to the Soviet Union early was seen as something unworthy. The upshot was that only a small proportion of the contingent of troops became cadets during their term of service. But even fewer have enrolled in service schools after being discharged into the reserve. The reasons for this are something I want to discuss in greater detail.

To start, let me point out that I often meet and correspond with many comrades from Afghanistan and know their sentiments. And I can say with confidence that there are quite a few among them who would gladly pursue careers in the army. But... Allow me to "decipher" the meaning of this "but" from my own experience.

I've got two years' service in the airborne troops under my belt, as a junior commander and intelligence officer. I've gone out on dozens of combat missions, been wounded, and been decorated. After being discharged to the reserve, I realized that my place was in the army. I became a cadet. And from the very first days in the higher service school, I found myself with the status of new recruit. Classes for the novice soldier, reveille, taps, and much, much more from the basics of military service—on an equal footing with people who only yesterday were still in school. And, of course, life in the barracks.

I am now completing my third year of classes, and so have had the status of a servicemen doing his compulsory service, with all the ensuing "comforts," for almost five years now. And I still have two years to go. Tell me honestly: Can many people be attracted by six to eight years of this sort of life, even if they want very much to become officers? It is utterly incomprehensible: Why is someone who just got out of school treated the same as a soldier, say, who has completed a large portion of his mandatory service or who has become a cadet after discharge into the reserve, and who served in Afghanistan to boot? Why are procedures in effect in higher service schools that are completely at odds with both constitutional rights and elementary logic?

A soldier who has served two years can submit an application and in a matter of days become an extended-duty servicemen or even a warrant officer, in the process obtaining different rights and responsibilities, a different uniform, different pay and living conditions, and so forth. That same soldier, on submitting an application and enrolling in a service school, retains the status of soldier for another four or five years. How can the two options be reconciled?

Yes, the services of an extended-duty serviceman or warrant officer are important and judged by criteria that differ from those used to evaluate a soldier's services. But are the services of a cadet who is studying to become an officer and who, moreover, has already fulfilled his constitutional duty any less important?

Those who enroll in service schools after discharge into the reserve are fairly grown-up, over the age of 20. And very soon if not immediately, in most cases, they start families—you'll forgive me, but life takes its course. Meanwhile, the wretched and desperate conditions in which the families of cadets are forced to live are well known. And not for a year or two, mind you, but for three to five years. For example, though I'm a married

man, I cannot allow myself to live with my family. My wife, a student, lives with her parents in the Ukraine. On my 25 rubles a month and her stipend, I'm simply not in a position to either provide elementary living conditions for my family or even feed it.

Quite a few of my Afghan veteran friends who still haven't given up their dream of becoming officers are also married. And it's not easy, needless to say, for them to decide to alter their settled lives. Not at all easy. Moreover, what lies ahead in the coming years?

One need only get on a bus to read the announcement: Drivers needed, salary 350 to 600 rubles a month. Students are paid a stipend of 70 rubles monthly. In other words, a young man who doesn't even have any special skills will, within a few months, be making a salary the minimum of which I can only dream of earning some 10 to 15 years after finishing service school. Needless to say, an Afghan war veteran or other soldier in the reserve is going to think twice before submitting his application to a service school.

Granted, for those who choose a career as an officer, money and other material goods are not a primary motivation. But there is another obstacle that blocks Afghan war veterans' path to service schools—age. Most are over 20 when discharged into the reserve. After Afghanistan (I know this from my own experience), you don't feel like heading right off to service school; you have to catch your breath and unwind for a while, as they say. But by the time your 23rd birthday rolls around, it's too late. Quite a few of my comrades can't become cadets for this reason alone! And within a couple of years the path to the service school will be blocked for all Afghan war veterans.

What do I propose? First, resolve the matter of conferring the status of extended-duty servicemen on cadets who have enrolled in service schools from the reserve (after they complete their first year). Second, extend the age limit for enrolling in service schools by two or three years for Afghan war veterans.

In my view, this must be done at once. There can be no more delay. We acquired our combat experience at a high price, and to fail to use it to maximum benefit would be inexcusable.

Cadres Officer on Call-Up, Retirement of Reserve Officers

18010830 KRASNAYA ZVEZDA in Russian
4 Jul 89 First Edition p 2

[Interview with Lt Col V. Stoyakin: "Service of VUZ Graduates"; date and place of interview not given]

[Text] The editor's office receives many letters from graduates of institutions of higher education, and each one contains questions about service as a reserve officer.

Our correspondent met with Lieutenant Colonel V. Stoyakin, group chief of the Main Personnel Directorate of the Ministry of Defense, and asked him to comment on some letters.

[Question] Valentin Andreyevich, on 30 April of this year you explained in KRASNAYA ZVEZDA many of the provisions concerning service by "two-year men." Nonetheless readers still have questions. Thus, young specialists A. Boretskiy, A. Silin and A. Melentyev, institute graduates, ask: Why are they being called up for active duty if in their words a decision has been made to terminate call-up of reserve officers for 2 years? D. Khomyakov, a graduate of the Moscow Institute of Chemical Machine Building wonders about something else: Why is he being called up as a political worker, rather than in his specialty?

[Stoyakin] No decisions have been made to terminate call-up of reserve officers for 2 years of active military service, since the need for calling up reserve officers in hard-to-fill specialties still persists. These specialties were indicated in the article published on 30 April of this year.

Reserve officers who are members of the CPSU and who have been certified or recertified as political officers are called up for political work irrespective of the military or civilian specialty they acquired in VUZes. The reason for this is that there is an extremely negligible number of party members among graduates in the humanities. This is why many political workers among those called up from the reserves do not serve in the specialties they acquired in VUZes.

Political officers are presently scarce specialists, and for the moment there is no possibility for terminating their call-up. Other officers called up from the reserves are appointed as a rule to positions in their military or civilian specialties or in kindred, corresponding military specialties.

[Question] Lieutenant I. Gaysin, a graduate of the Mari Polytechnical Institute, has been serving as an officer since 1988. He had already completed his compulsory tour of duty in line units in 1982-1984. Lieutenant N. Popov, chief of his unit's food service, has found himself in the same position. What they ask in their letters is this: Will they be discharged upon expiration of the established term, since this is the second time they have been called up?

[Stoyakin] Persons who had previously served active military duty as privates, seamen, NCOs and petty officers and then graduated from VUZes and were awarded the rank of an officer have been called up in accordance with the USSR Law "On Compulsory Military Service" for a second two-year term in order to acquire working experience at officer positions. This

duty differs dramatically from that of soldiers both in the kind of work they do and from the standpoint of material support and living and personal conditions.

Certain officers in this category may doubtlessly be given an early discharge into the reserves, if their positions are cut. In connection with significant reduction of the demand for specialists, a decision has now been made to call up, for officer positions, reserve officers who had previously undergone active military service as privates, seamen, NCOs and petty officers only with their consent.

[Question] To conclude, Valentin Andreyevich, I have a question all VUZ graduates wonder about. Who among reserve officers that have graduated from institutions of higher education will be called up for a two-year term, and who will not?

[Stoyakin] Let me say right away that there is no prohibition on calling up reserve officers for 2-3 years immediately after graduating from VUZes. The call-up of graduates of institutions of higher education is planned for every year by the USSR Gosplan within limits determined by the country's government.

In the last year and a half, rectors and students of a number of VUZes have sent many letters, including group letters, requesting not to call up VUZ graduates for active military duty as officers in order to allow them to begin work in accordance with their job placement, and to receive housing space at their place of work or to be placed on a waiting list for it. Wishing to meet these requests half-way, the leadership of the USSR Ministry of Defense made a decision that beginning in 1990, specialists needed by the army will be called up only from among reserve officers already working in the national economy.

Compensating for Low Quality of Draftees from Urals

18010850 Moscow KRASNAYA ZVEZDA in Russian
8 Jul 89 First Edition p 2

[Lieutenant-General I. Matveyev, Deputy Chief of the Main Organizational-Mobilization Directorate: "'KRASNAYA ZVEZDA' Responds...: A Directorate of the USSR Armed Forces' General Staff'.]

[Excerpt] In an article by Lieutenant-Colonel N. Panyukov, published in the newspaper and entitled: "Indifference" (KRASNAYA ZVEZDA of 4 April 1989), we reported that in conformity with established procedure, purposefully included in each draft, among the young replacements sent from the Military Commissariates of Sverdlovsk, Perm and Chelyabinsk oblasts for active duty military service in the Group of Soviet Forces - Germany (the Western Group of Forces), were 110 draftees intended for the Guards Tank Division having the honorary title "Ural-Lvov", from each of the oblasts. It is calculated that this division, as with all of the tank troops, is manned basically by sergeants and

soldiers who have passed through training in training subunits. [However,] the large unit [the division] is directing the young replacements intended for it into related training units.

Thus, according to information from the Staff of the Group of Soviet Forces - Germany, of 330 draftees, who have arrived in the Group of forces in the fall of 1988 for active duty military service in the Ural-Lvov Division, 84 men were sent directly into the military portions of this formation. The remaining had to be sent there after passing graduation examinations in training units.

It is in connection with this that, aside from Urals draftees, boys from the Moscow and Carpathian Military Districts are sent to the division. ...

Supreme Soviet Decree on Early Release of Higher Education Students

18010840 Moscow IZVESTIYA in Russian
13 Jul 89 First Edition p 1

[Decree of the USSR Supreme Soviet on Demobilization from Active Military Service of Certain Categories of Draftee Servicemen, and interview with General Lieutenant N. Ter-Grigoryan, Ground Forces Deputy Chief of Staff, by N. Sautin: "Students Return from the Army"]

[Text] The USSR Supreme Soviet resolves as follows:

During August and September 1989 to demobilize from active military service for the purpose of continuing their education draftee servicemen who are day-time (full-time) students at VUZ's who were drafted into the USSR Armed Forces and the border troops, internal security troops and railroad troops during the period 1986-1988.

To consider that for these servicemen the period of military service actually served will count as time served toward the actual period of military service.

[signed] M. Gorbachev, Chairman of the Supreme Soviet. Moscow, the Kremlin, 11 July 1989.

IZVESTIYA correspondent N. Sautin asked the Ground Forces Deputy Chief of Staff General Lieutenant N. Ter-Grigoryan, to comment on this USSR Supreme Soviet decree.

[Sautin] I think I am not mistaken in saying that the transfer of students to the reserve will mostly affect the ground forces.

[Ter-Grigoryan] Today there are about 176,000 former students in the USSR Armed Forces. Of these some 82,000 are in the motorized infantry, tank, engineering, chemical and other units of the Ground Forces. By

September they will all have returned to the student lecture rooms. And this evening the command will be issued to the line units of regiments and individual battalions to check and clarify soldiers and sergeants from their service records to find which of them have been full-time students at VUZ's.

[Sautin] From my own army experience I know that those records are not always accurately maintained. They forget, for example, to record a note at the military commissariat and the soldier is denied. And the resentment that this causes!

[Ter-Grigoryan] Soldiers, sergeants, and warrant officers who have been drafted into the army from the institutes should inform their commanding officers of that fact. If no annotation of this has been made in the documents, the military unit will send a letter of inquiry to the rector of the VUZ.

[Sautin] How do you see the parents of soldiers themselves taking the information beforehand and sending it to the units?

[Ter-Grigoryan] They will help us enormously by doing this. But it is better to send two reports, one to their son and a notarized copy to the commanding officer.

[Sautin] Before talking with you I was in General Headquarters. There they were making no secret of their concern about a possible decline in our combat readiness. For example, in the Group of Soviet Forces Germany about 700 tanks and 900 infantry combat vehicles will be left without crews, and about 10,000 soldiers will be transferred to the reserves.

[Ter-Grigoryan] Of course, we shall not immediately cover these losses. The Baltic Military District, for example, will be deprived of 3,128 former students, the Moscow District of 4,510, Leningrad District of 2,400... If we take into account the fact that it is precisely the students who held the positions of junior commanders and specialists and largely determined the combat readiness of the units, then naturally their demobilization will create certain difficulties for us.

[Sautin] Was this decree unexpected for the Armed Forces?

[Ter-Grigoryan] When Army General D. Yazov was confirmed in the post of Minister of Defense he stated directly that the army still cannot get by without students. Then Mikhail Sergeyevich said: but we must think about it. They gave us a night to think about it. We asked in all the districts and fleets. The figures from the General Staff were submitted to the USSR Council of Ministers, and thence to the Supreme Soviet. This is how the decree came about.

Reduced Numbers to be Involved in Exercises
18010855 Moscow KRASNAYA ZVEZDA in Russian
23 Jul 89 First Edition p 3

[TASS report: "In the USSR Ministry of Defense".]

[Text] In conformity with a decision of the Soviet Government on the reduction of the USSR Armed Forces, the withdrawal of Soviet troops from the territories of the GDR and the VNR [Hungarian Peoples' Republic] to the Soviet Union is being fulfilled.

Simultaneously, a series of organizational measures concerned with giving to formations and units a new structure, corresponding to the demands of the defensive character of Soviet military doctrine, is being carried out among the troops.

In connection with this in the plan for USSR military activities subject to notification during 1989, changes and a reduced general number of personnel participating in notifiable military exercises are being introduced:

- in exercises on the territory of the GDR in September, instead of 25,000 men, less than 13,000 men and less than 300 tanks will operate;
- in the exercise on the territory of the VNR in October instead of 13,000 men, up to 11,000 men will be turned out;
- in exercises of the Airborne Forces on the territory of the Baltic Military District in September instead of 16,500 men, it is planned to involve around 13,000 men.

Reports concerning changes in the plan of notifiable USSR military activities will be directed to all member-states of the Conference on Security and Cooperation in Europe on a timely basis.

152 mm Gun 2A36; AK-74; On Patrol

2A36 152 mm Gun

81440754 Moscow VOYENNYE ZNANIYA in
Russian No 5, May 89 pp 15-17, 24-25

[Article by Reserve Colonel V. Knyazkov: "2A36 152 mm Gun"]

[Text] The "enemy's" tank counterattack took the forward elements by surprise. Having overrun them, the armored vehicles rushed into the attacker's rear area, threatening to disrupt all his plans and calculations. The alarming news about the surprise breach caused noticeable agitation at the large unit's [soyedineniye] KP [Command Post]: The danger needs to be eliminated quickly! Commands follow and already a battery of powerful long-barreled guns are being deployed on the path of the "enemy" tanks...

The following classification has been adopted for modern artillery systems: They are divided into small-caliber (up to 75 mm), medium-caliber (from 75 to 130 mm) and large-caliber (over 130 mm). The guns which repelled the "enemy" counterattack belong to the latter group.

The battery which carried out the mission was equipped with 2A36 152 mm guns. It is true that they are designated first of all for low-trajectory fire and destruction of personnel, fire assets, and combat equipment located at a significant distance from the forward edge of the battle area.

They can conduct fire not only from covered firing positions but also by direct fire.

It is not surprising that the gun looks so imposing. In the first place, the very long barrel catches your eye: Its length together with the muzzle brake totals 8,197 mm! Thanks to which a high-explosive fragmentary shell weighing almost half a centner (46 kg) attains a muzzle velocity of up to approximately 800 meters per second. A propellant charge located in the shell case also ensures it and this is no less than 11 kg of first class artillery propellant. All of this allows the gun to fire at the enemy from a distance of 20 km or greater. The gun has outstanding capabilities for adjustment of fire since it has an angle of elevation of 57 degrees, an angle of depression of 2 degrees 30 minutes, and an angle of horizontal deflection of 50 degrees.

Since the artillery round (the shell case plus the propellant charge) is quite heavy, quick-fire separate-loading is utilized. And so that it occurs without a hitch, there is a ram in the gun design which is set into operation by a hydropneumatic accumulator. Man's hand is in essence replaced by a simple manipulator.

When the shell is placed on the ram's loading tray, the control lever needs to be moved into the "Ram" position with a sharp movement. All of the mechanism's elements are activated in succession and, finally, the ram chain advances and, a dolly [klots], which is a special device of the ram chain, rests against the bottom of the shell, "picks it up," and sharply feeds it into the barrel. So sharply that, in this case, experts say "until its launch" into the rifling in the bore in describing the process of feeding the shell forward.

If the control lever is now turned to the "Return" position, the ram chain returns to its initial position. The shell case with the propellant charge is placed on the loading tray and proceeds to the bore in this manner. When the breech mechanism is closed, the ram automatically moves "to the side" of the ramming line and, after the round is fired, it will also be automatically returned [to its initial position].

So that the gun will not "jump" while firing a round, it is set up in deployed configuration on three resting points—on two trails and a jack. This is how carriage stability is achieved and consequently conditions are created for stable and accurate firing of rounds. There are two more jacks on the trails. The gun's weight in deployed configuration totals 9,760 kg, and still more in traveling configuration—9,800 kg. Of course, this load is mainly on the trails, and, in battle, they need to be brought together, separated, raised, lowered, or moved to the right or to the left. The jacks make it easier for the artillerymen to carry out this heavy work.

The gun's muzzle brake is a multi-baffle slitted type and its weight is almost one and a half centners (exactly 141 kg). It serves for additional braking of the recoil. It is thought that the anti-recoil devices—the recoil brake and the counterrecoil mechanism—carry the main share of the work during this. But the gun's fire power is so great that one additional part was needed in the gun's design.

It has a sliding-wedge breechlock with horizontal wedge placement and it opens to the right. It has a welded tube-type cradle. Although the term is also domestic, it is also very successfully borrowed since the gun's barrel is resting solidly, like a child in a cradle, in this design.

The trails are box-shaped and welded, and they have winter spades on their rear assemblies. They, figuratively speaking, are constantly movable. If firing of rounds is being conducted from soft ground, heavier detachable spades can be installed in addition which are sometimes called summer spades. When the gun is being transformed from deployed to traveling configuration, the trails are brought together and are secured with a clamping device. The fastening bar is also located there with whose help the trails are connected to the prime mover.

The gun's basic ammunition load consists of high-explosive fragmentary and armor-piercing projectile tracer artillery rounds. High-explosive fragmentary rounds,

called shells, are widely used for destroying personnel and weapons, both located in the open and in shelters. Targets are destroyed through the combined effects of the shell fragments and the force of the explosion. Armor-piercing and tracer rounds are used for firing on the enemy's tanks and self-propelled artillery.

A description of the gun's firing capabilities is inconceivable without such an important indicator as rate of fire. It is 5-6 rounds per minute. Is this large or small? This is probably not too bad for such a powerful artillery system. Let us imagine that a four gun battery conducts a minute-long period of heavy shelling on an enemy personnel concentration. During 60 seconds, approximately one ton of lethal metal will plaster the target.

This artillery system is transported by a KrAZ-255B truck or an ATT [Artillery Heavy Prime Mover], ATS [Artillery Medium Prime Mover], or ATS-59 tracked prime mover. They determine these components of maneuverability, cross-country capability, and turning ability. We can judge mobility by the transport speed of the artillery train (prime mover plus gun). For example, towing speed on dirt roads is 35-45 km/h and is significantly higher on hard surface roads, up to 60 km/h. And the KrAZ's maximum towing speed on hard surface roads is 80 km/h.

Some of the gun's dimensions in traveling configuration are: length, 12,920 mm; width 2,788 mm; height (along the barrel) 2,760 mm; road clearance, 475 mm; and track width, 2,340 mm. The gun's length in deployed configuration is 12,300 mm; wheel diameter, 1,080 mm; wheel width, 300 mm; normal tire pressure is 4.8 kg/cm squared plus or minus 0.2 kg/cm squared; and suspension movement is 150 mm. We must also mention that the gun can also be used successfully with an atmospheric air temperature range from - 50 degrees C to + 50 degrees C.

In sum, the 2A36 152 mm gun completely meets contemporary requirements: It has a large firing capacity, is reliable and mobile, can be transported to any distances by rail, water, or air transport, and is capable of carrying out complex missions in all types of combined-arms combat.

AK-74 Automatic Weapon

81440754 Moscow VOYENNYE ZNANIYA in
Russian No 5, May 89 pp 16-17

[Unattributed Article: "Ask and We Answer: AK-74"]

[Text] What tactical-technical characteristics does the AK-74 possess?

S. Denisenko, student, Chirchikent.

Designed by M. Kalashnikov, twice Hero of Socialist Labor, this 7.62 mm assault rifle is notable for such completeness and such perfection of design that, when

the question was raised about creating types of small arms with a smaller caliber cartridge, they took the AKM [Kalashnikov Improved Assault Rifle] as its basis. That is why the AK-74 has the same assault rifle design as the AKM and many of their TTKh [Specifications and Performance Characteristics] are also similar.

The AK-74 fires 5.45 mm caliber cartridges. The round of this cartridge has a high muzzle velocity and a large weight to caliber ratio which ensures a good angle of trajectory and high penetrating power. The low recoil (that is why 5.45 mm cartridges are called low recoil) increases the assault rifle's accuracy of fire. As experts point out, the AK-74's firing effectiveness exceeded AKM's effectiveness by 1.2 to 1.6 times.

And now about AK-74's the tactical-technical characteristics (From the book titled "Rifles and Assault Rifles" by S. Zhuk: Length, 940 mm; weight, 3.3 kg; magazine capacity, 30 cartridges; rate of fire, 600 shots per minute; and range, 1,000 meters. You can fire this assault rifle in single shot, semi-automatic, or in full automatic mode.

Recon Patrol Squad Tactics

81440754 Moscow VOYENNYE ZNANIYA in
Russian No 5, May 89 pp 24-25

[Article by A. Markeyev, Oblast IUU [Institute for the Advanced Training of Teachers] Training Expert: "On Patrol: Tactical Training. Topic 10, Lesson 3, 'A Soldier's Actions as Part of a Patrol Squad'"]

[Text] Training for this tactical formation lesson includes: determining a platoon's organizational-organic composition as a whole and a patrol squad from a number [of formations] studied; explaining topics and academic questions; precisely determining the course's teaching and educational goals; selecting a location for conducting the lesson and its preparation; and, training assistants to the leader (platoon and squad leaders) and students.

Having become thoroughly acquainted with the provisions of the Ground Forces (platoon, squad, tank) Combat Regulation and other literature, it becomes clear that, during these training sessions, you need to study the patrol squad's (squad's) forward movement procedure toward the enemy's defenses under pressure of his aviation and the threat of the use of weapons of mass destruction; the terrain and terrain feature observation procedure by patrols (water obstacles, forest, populated area, bridge, etc.) and reporting the results of the [terrain] inspection: actions when an airborne enemy warning signal is sounded and during a nuclear explosion.

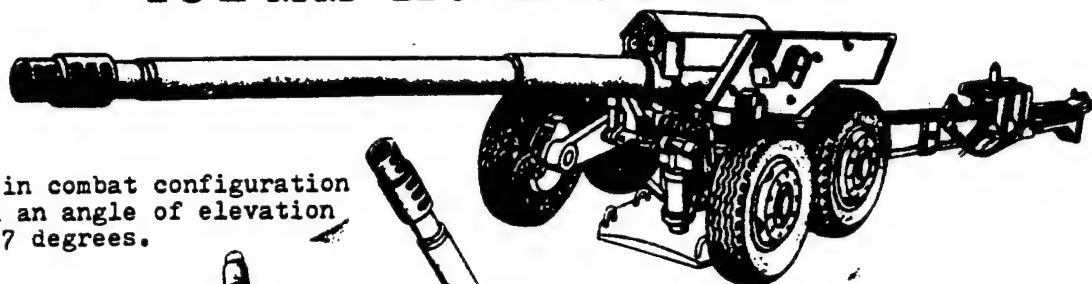
The military leader must determine a tactical plan which reflects possible variations of enemy and student activity. He also needs to select an area of terrain, the nature

152 mm Gun 2A36

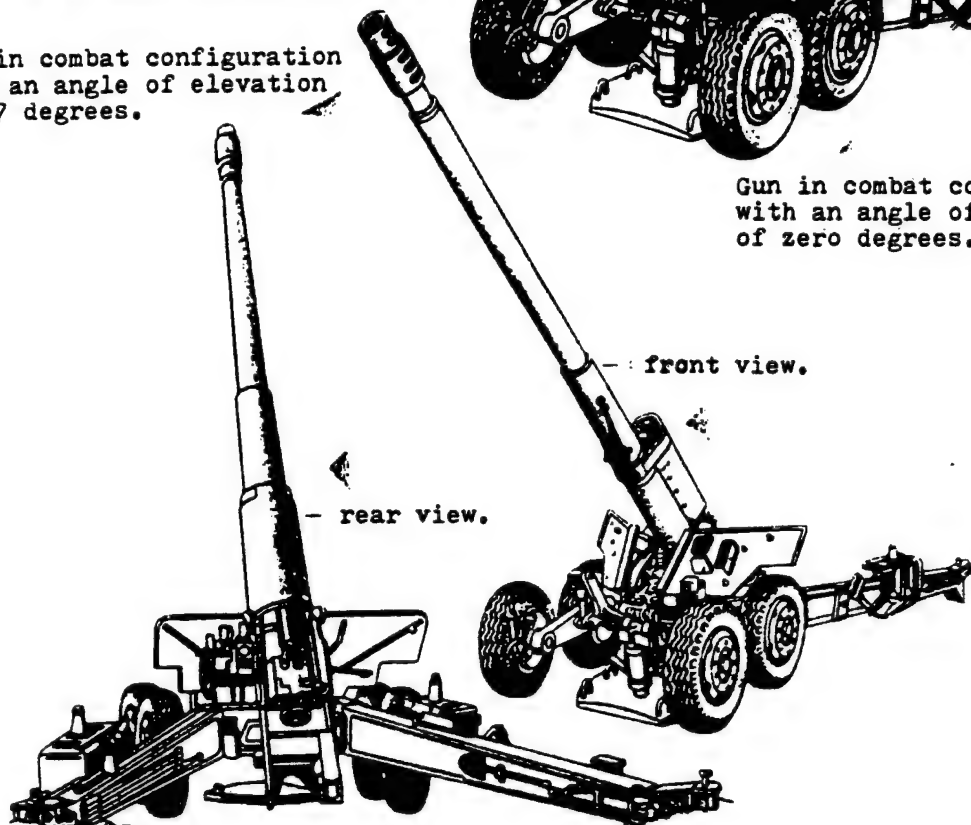
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152-ММ ПУШКА 2А36

Gun in combat configuration with an angle of elevation of 57 degrees.



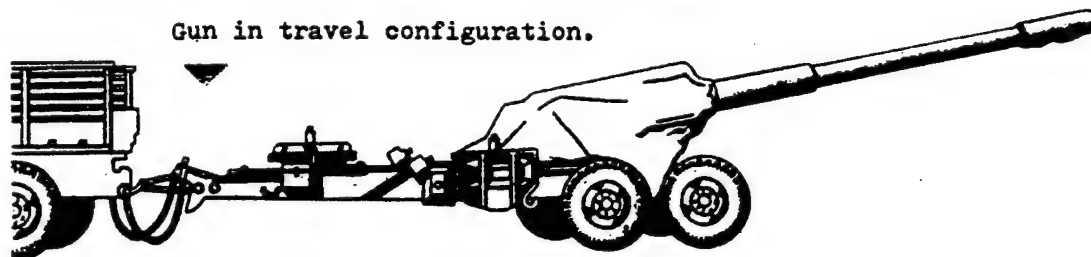
Gun in combat configuration with an angle of elevation of zero degrees.



front view.

rear view.

Gun in travel configuration.



of which promotes working out academic questions to the greatest degree (sufficient in size, with the presence of groves, brush, depressions, heights, bridges, structures, etc.).

After approval of the lesson plan, the military leader trains his assistants (platoon and squad leaders) directly

on location. On the eve [of the training session], he needs to lead a discussion with them at the sand box (a model of the terrain) about the missions that the patrol squad (squads) will be carrying out, about the their procedure for movement toward and observation of a water obstacle, bridge, forest, populated area, etc. It is desirable to accompany the discussion with a movie or film strip on

the subject. Direct the assistants to pay particular attention to the need for displaying decision-making initiative, resourcefulness, sharpness, and military stratagem.

Here is a military leader's typical account during a discussion at the sand box (terrain model).

From previous lessons, you know what reconnaissance is, what missions it carries out, and what kinds of demands it makes. I remind you that a soldier and a subunit, assigned to reconnaissance, must act stealthily and boldly, and display resourcefulness, initiative, and sharpness. The methods of conducting reconnaissance are: observation, eavesdropping, search, ambush, and reconnaissance in force. Besides that, the conduct of reconnaissance is attained directly during observation of terrain and individual terrain features and also during interrogation of prisoners and battlefield defectors, questioning of local inhabitants, and study of the enemy's seized documents.

For conducting reconnaissance, a motorized rifle platoon can be assigned to a reconnaissance patrol which operates from a BMP [Combat Infantry Vehicle], (BTR) [Armored Personnel Carrier], on foot, and during winter, on skis. The platoon is detached to a patrol squad and the latter into patrols.

During training for operations on foot, special attention is devoted to the fact that uniforms and equipment must be arranged so as not to hamper movement and not to create noise.

The reconnaissance patrol's movement procedure must ensure the most successful completion of the assigned mission and at the same time exclude the possibility of a surprise encounter with the enemy. Patrol squads are sent out for terrain and terrain feature observation ahead and to the sides away from the recon patrol's direction of travel and, during movement on foot, the latter send out patrols.

A patrol squad's (patrols) main mission is timely detection of the enemy, contaminated and destroyed sections of road (on the route), and immediately reporting this to the commander who sent it (them) out. Patrols usually operate in pairs. One of them is senior and follows a bit behind its companion and is ready to support it with fire if the need arises. Both move stealthily and carefully so as not to end up in an enemy ambush. Patrols are located at distances which insure visual contact with the patrol squad and the capability of supporting it with fire (200-300 meters during the day and up to 60 meters at night).

Patrols observe terrain and terrain features on the move or with short halts not holding up the movement of the patrol squad. At the same time, they very carefully examine locations where one can fear a possible enemy surprise attack from an ambush. In an area of a possible encounter with the enemy, patrols, as a rule, operate

off-road, moving from one point suitable for observation to another. Having become convinced that the enemy is not there, the senior patrol gives the conditional signal "The path is clear." Not having received the signal, "Continue moving," the patrols observe until the patrol squad leader's arrival. The squad leader maintains communications with the patrols through signals transmitted by hand, small flags, or a flashlight.

Observation, ambushes, raids, and, when necessary, battle, these are the resources the recon patrol uses to carry out its missions.

Patrols usually avoid enemy reconnaissance and advance parties, while reporting them to the squad leader. Their goal is to stealthily approach the main forces, establish their composition and direction of movement, and afterward continue observation of them. During a surprise encounter with the enemy, when it is impossible to avoid an engagement, the patrol squad (patrols) opens fire and enters into a skirmish. Using confusion, they capture prisoners. After this, the patrol squad (patrols) leaves the engagement and continues to carry out the assigned mission.

During reconnaissance of a water obstacle, they determine the nature of the banks, the presence of obstacles on them and in the riverbed, its width, depth, and the speed of the current, and they try to find fords. They establish the river's width by eye, with the help of binoculars, or by direct measurement. Depth is established during crossing at a ford or having sounded with a pole (by a rope with a weight attached) from a boat or small raft. The speed of its current is determined by the movement of a small (floating) object thrown into the river. A ford must be found on broad sections of the river with gently sloping descents to the water. Its possible signs: roads, paths, or ruts which continue to the other bank.

They begin reconnaissance of a forest with observation of the forest's edge. At first, from a distance. If they note smoke from a campfire, sparkling of glass or of metal parts of vehicles or equipment, tank or motor vehicle tracks leading into the forest, felled trees, frequent flights of birds if their cries are heard, or engine noise, this is evidence of the enemy's presence.

Patrols complete movement through a forest along roads or forest openings, while observing, listening, and making short stops. Off roads, they move along an azimuth. In forests, they devote special attention to thick brush, entrances and exits from depressions and ravines, and tree tops, that is, places which are a possible location of an ambush, and also on roads moving away to the side of the route of march. Upon exiting the forest and on its edge, patrols, being located under cover, observe the terrain lying ahead. If there is no danger, they leave the forest and continue carrying out the assigned mission.

Reconnaissance of a populated area begins with preliminary observation of it from a distance. At the same time, they particularly carefully observe individual structures, stone buildings, plants and shrubbery, and the outskirts of the populated area where the enemy may locate his guard subunits and observers. The signs of ambush are: unusual noises, dogs barking, and also complete silence, or the absence of movement.

If a patrol encounters a separate structure on the route, it goes around it with weapons at the ready, observes the windows and doors, and constantly eavesdrops on what is occurring inside. Afterward, the patrol enters the structure and searches its rooms, basement, and attic. The senior patrol is under cover at this time and is ready to render assistance to the patrol if necessary.

Patrols observe a bridge from a distance and approach it only afterwards, determine its approximate load capacity, length, and width, and if it is mined or not. If it is mined, they post a "mined" sign on it. But what do they do if the enemy is defending the opposite shore? They set up thorough observation of the enemy and take steps to search for another bridge or ford.

Patrols, as we have already said, must visually inspect deep ravines. Simultaneously, one of the patrols moves toward the bottom of the ravine and the second (remaining patrols) move along the edge.

Students must remember that at night or limited visibility, patrols stop from time to time to listen and by this means also determine if the enemy is there.

To capture prisoners, documents, and examples of weaponry during favorable conditions, the patrol squad sets up an ambush, usually in places where one can ensure surprise. For this the patrol squad separates into groups for attack and support and assigns a lookout.

Two to three of the most physically developed soldiers are assigned to the attack group. They are located in the center of the ambush (directly adjacent to the attack location) or at a grenade throwing distance from it. Two to three soldiers are assigned to the support group (one is a machinegunner) and are located on the flanks of the ambush, at locations suitable for conducting fire. The lookout assumes a position which allows him to detect the enemy's approach in a timely manner and to maintain visual contact with the squad leader. A BMP (BTR) is located in a shelter, ready to provide fire support for the squad's action. The squad leader, as a rule, is with the attack group.

Attack from ambush should be carried out noiselessly when possible, without opening fire and using grenades. The patrol squad leader organizing the ambush determines the locations of the BMP (BTR), soldiers, and also operations procedures, and signals for attack, open fire (if necessary), and withdrawal. He designates his assistant.

Having received a combat mission, the lookout, attack and support groups assume their assigned positions. The lookout noiselessly warns (using the established signal) the squad leader about the enemy's approach. Single soldiers and small groups of the enemy are allowed into the center of the ambush and afterward the patrol suddenly attacks and captures prisoners. Prisoners and dead are searched, documents and samples of weaponry are taken, and symbols on destroyed vehicles are memorized.

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Qualitative Parameters: Creating A National Training Center
18010818

[Editorial Report] Moscow KRASNAYA ZVEZDA in Russian of 20 April 1989 publishes in its second edition on pages 1-2 another in the series of articles under the rubric "Combat Readiness: Qualitative Parameters", which have focused on the development of Soviet tactical thought, as it adjusts to the new "defensive" doctrine. This article is written by KRASNAYA ZVEZDA correspondent Major A. Dokuchayev and entitled: "Neglecting Priorities: Why is the Road from the Birth of a New Idea to Its Realization So Long?"

Major Dokuchayev points out that a centralized training facility, capable of using laser train-fire simulators and of conducting two-sided exercises, has proven to be very useful in other armed forces. He notes in particular that the U.S. Army National Training Center has existed at Fort Irwin, California since 1981. It is said to be able to conduct training for 28 combat battalions per year. For this purpose it possesses the equipment and weapons for four battalions, as well as artillery and air defense equipment. A similar facility has existed in the FRG for more than a decade.

The Chief of Ground Forces' Combat Training Directorate, Lieutenant-General V. Khazikov stated that the Soviets will create a similar training range for the Ground Forces. However, the author complains, there have been problems with the manufacture of laser simulators. They "do not conform to current requirements." They cost thousands of rubles and are difficult to maintain. Moreover, the first models were not sent to any centralized training facility, but rather to artillery battalion training facilities, where there was neither practical nor methodological knowledge about their use. And this has been true despite the fact that other combat arms, such as the Air Defense Forces have experience with centralized training operations.

Efforts to improve combat training are beginning to take hold among "enthusiasts", but not among the wider military population. Thus it is only in this year that Air Force and Air Defense Force unit cooperation in training is being provided for in a draft document by the Commanders-in-chief of the two combat arms. According to Lieutenant-General N. Chukarin, the Deputy Commander-in-chief for Combat Training of the Air Defense Forces, this was due to "timidity in the face of a serious problem... Someone had make a responsible decision."

Nonetheless, new programs have begun in combat training. The Chief of a directorate within the Main Directorate of Combat Training of the Ground Forces, Lieutenant-General A. Rubinchik, has stated that a conference of leadership officers throughout the armed forces took up the problem in August of 1987. The

Ground Forces requested that officers and generals of the military districts, combined formations and units make proposals on the restructuring of combat training.

Among problems preventing such reform Colonel-General Demidov cites "our conservatism", Lieutenant-General Chukarin referred to "Departmentalism".

Pilot Discusses Flight Characteristics of SU-27
18010715 Moscow KRASNAYA ZVEZDA in Russian
13 Jun 89 Single Edition p 4

[Report on the Le Bourget Air Show by Col A. Andryushkov: "The Pugachev 'Cobra'"]

[Text] More than 1,600 firms and organizations from the various continents were represented at the 88th International Aerospace Salon in Le Bourget with their best scientific and technical advances. Interest in the exhibits was very high. Last Sunday it was hard to make one's way to many of the pavilions and stands.

Constantly on the pages of the newspapers and magazines is the name of the test pilot from the OKB [Experimental Design Bureau] imeni A.I. Mikoyan, Anatoliy Kvochur, I have seen his photographs on buttons and at the Soviet Embassy the telephone does not stop ringing. The people are interested in the health of the courageous pilot who risked his life for the sake of saving them. Let me state that Anatoliy feels fine and is getting ready to hold a press conference at Le Bourget.

Roman Taskayev with his navigator Yuriy Yermakov—the crew of the second MIG-29 fighter trainer—are continuing to enthrall the visitors with their expert piloting techniques. The weather has imposed its own limitations in addition to the strict rules of the salon. There are cumulus clouds in the July Paris skies. At any moment they are ready to pour down hail. The pilots do not fly higher than a thousand meters. There are many birds over the airfield at low altitudes. The possibility of colliding with them is not to be excluded.

Under these conditions, the specialists pay particular attention to the equipment for rescuing pilots. The K-36 ejection seat of the MIG-29 designed by G. Severin and which is standard equipment, incidentally, on all Soviet combat aircraft, saved the life of Kvochur in what was seemingly a hopeless situation.

"The altitude," Anatoliy later told me, "when I diverted my MIG from the viewing stand and, having pushed the controls sharply forward, I reached for the ejection ring to activate the servomechanism, was not more than 50 m. The aircraft nosed down into the ground at an angle of 80 degrees. I was shot out level to the ground. In a fraction all the elements of the aircraft escape system had activated. But the parachute canopy had not fully

opened but that was not the fault of the equipment—time and altitude did not suffice. But speed was low and it was like jumping from the fourth floor....”

Kvochur's body is solid muscle. The trained muscles securely protected all the pilot's inner organs against contusions and prevented fractures. And while the purchasing of licenses for the increased-safety ejection seat by foreign firms is a matter of the future, the concern of the pilots for their physical state is a demand of today.

At Le Bourget the meeting with Kvochur at the press conference was awaited with great interest. Naturally, many had to learn of it from the announcements of the mass information media and for which everything happening at the air show is the number one subject. But thousands of visitors from morning to late in the evening hurry to the area where Soviet equipment is shown. People, literally transfixed, stand long by the giant AN-225 Mriya aircraft with the Buran fastened to its fuselage and try at least to touch the wing of the SU-27 interceptor fighter when it, escorted by an honor guard of 10 motorcycle-mounted policemen is summoned to the start zone.

While the courageous deed of Kvochur won for us the affection and gratitude of the French people, the masterly piloting of the test pilots from the OKB imeni P.O. Sukhoy, Viktor Pugachev and Yevgeniy Frolov, demonstrated to the entire world what unattainable heights in aircraft building for many leading air firms of the world had been achieved by our country, having developed the SU-27. Neither the American F-16s, the French Mirage-2000 nor any other aircraft of the more than 100 nations of the world had endeavored to repeat what the SU-27 had done.

What had the pilots from the Sukhoy OKB demonstrated in the air so that everyone realized that there is no second such aircraft in the world? They executed an aerobatics figure which has been called here the Pugachev “Cobra.”

There are three types of flying known: simple, advanced flying and higher aerobatics. What Pugachev and Frolov did on the SU-27 fighter does not fit within these concepts. This was a step into a new age of aviation. In flying language, this is called a demonstration of aircraft supermaneuverability. It is difficult to get across in words the entire dynamics of a flight by Viktor Pugachev. But here is what his “Cobra” looks like.

After a series of stunts which KRASNAYA ZVEZDA already described on 4 June, Viktor Pugachev comes down the landing strip in level flight, accelerating rapidly. From the ground it seems as though the fighter is getting ready to take off into the skies. And precisely, the spectator sees the aircraft raise its nose and then literally breaks in the lateral axis but does not climb, rather lying almost on its “back” flies as before in level flight merely...with its tail forward. In 1.5 seconds, the speed

drops to 150 km an hour. The heavy aircraft remains controllable in the air and flies without stalling. All the systems work dependably. After an instant, blue lightning again flashes in the sky. The SU-27 drops its nose forward. Thus, having spread its hood, the angered “Cobra” makes a lethal strike at the game.

“What's the point of the given stunt?” I asked Pugachev after the flight. “Is it not executed just to show off?”

“Of course,” replied the pilot, “this is not a circus stunt. It is primarily a tactical procedure which should be incorporated in the combat arsenal of Soviet pilots. Just imagine close air combat. The enemy has been able to come in on your tail and it is attacking. And all of a sudden you execute a sharp dynamic braking of the aircraft. The enemy shoots forward. And that dash of the ‘Cobra,’ the pressing of the trigger and the firing of the cannon or the launch of a missile. Here the entire forward upper hemisphere can be fired on.”

“This procedure,” added the chief designer of the SU-27, Konstantin Marbashev, “can also be executed in attacking a bogey from a disadvantageous position. It, for example, has overshot the interceptor on a head-on course and is flying several kilometers above in altitude. The combat sit-up of the ‘Cobra’ is executed instantly and the pilot launches the missile over his head. Incidentally, this procedure has its own tradition. Aleksander Pokryshkin during the war years used a sharp aerodynamic braking of the aircraft several times in combat. In stunning the enemy he was victorious. Moreover, this element of flight confirms the high reliability of all the aircraft systems and its aerodynamic supermaneuverability.”

At Le Bourget, a whole series of trials befell the SU-27 and these theoretically are terrible to imagine. For example, here is one of them. On the day the air show opened, on 8 July, the SU-27 fighter trainer was piloted by Yevgeniy Frolov. On that day there were thunderstorm conditions and it was raining heavily. The aircraft was to be tested for resistance to lightning. A terribly strong bolt of celestial electricity hit the fighter. In similar instances on other types of aircraft virtually all the systems would instantly fail. But this did not happen on the SU-27. The pilot successfully completed the assignment. Having inspected the aircraft on the ground, specialists gave it an ‘okay’ for a new sortie.

In concluding our report, several words about those who ready the aircraft on the ground. For the four combat aircraft from the OKB imeni Sukhoy there is just one specialist for the main systems: electrical equipment, rescue equipment and aviation equipment. Such a number of personnel is fully sufficient for high-quality readying of the equipment far from the homeland. This also emphasizes the self-sufficiency in servicing the SU-27. The pilots are escorted in flight and met on the ground by the technicians Valeriy Sovkov, Nikolay Nazarov, Anatoliy Dorofeyev and Yevgeniy Barynin as well as the

operations engineer Yevgeniy Miroshnyakov. Today is a day of rest for the flight personnel at Le Bourget. There are no flights. All the pavilions are open. Our aviators have another week of hard work ahead of them at Le Bourget.

**Military Department Chief on Air Safety
Commission**

18010821 Moscow KRASNAYA ZVEZDA in Russian
27 Jun 89 First Edition p 2

[Interview with Major General S. Lartsev, chief of the USSR Armed Forces Aviation Department of the State Committee for Supervision of Air Liner Flight Safety under the USSR Council of Ministers, by KRASNAYA ZVEZDA Correspondent Colonel A. Garavskiy: "Increasingly Crowded Air Routes and the Ever Increasingly Complicated Insurance of Flight Safety"]

[Text] KRASNAYA ZVEZDA Correspondent Colonel A. Garavskiy's conversation with Major General S. Lartsev, chief of the USSR Armed Forces Aviation Department of the State Committee for Supervision of Air Liner Flight Safety under the USSR Council of Ministers (Gosavianadzor strany) and decorated USSR military pilot, began with the establishment of this fact.

[Garavskiy] USSR Gosavianadzor was only created several years ago. Readers ask, Sergey Semenovich, what caused this?

[Lartsev] Until September 1986, USSR Gosavianadzor existed under the Ministry of Civil Aviation [MGA] and was headed by an MGA chief at that time. And although it was conceived as All-Union and extra-departmental, it never really became that. Under this situation, truth and objectivity far from always triumphed. And naturally they raised a "plank" of significance and subordinated it directly to the USSR Council of Ministers.

[Garavskiy] The department you head provides the "junction" for monitoring the insurance of flight safety between military and civil aviation. How is the personnel issue being resolved? Who came to work here?

[Lartsev] The USSR Armed Forces Aviation Department is manned by sufficiently experienced and trained experts of various work backgrounds—they are pilots, navigators, engineers, and representatives of science, rear services, and communications from various military organizations (VVS [Air Force], VMF [Naval] Aviation, PVO [Air Defense] Aviation), and also from DOSAAF.

[Garavskiy] The mass media used to regularly report on foreign aviation accidents. But information and even more so statistics about flying accidents and disasters were kept locked up in our nation. Now it is another time—a time of glasnost. Many of our readers think that the situation on ensuring flight safety is worsening.

[Lartsev] It is difficult to answer that question simply. Judge for yourself. For example, in 1973, 818 people were victims of civil aviation disasters. Only specialists and the appropriate responsible officials knew about this at that time. "Whoever was supposed to know." Last year, 115 people died as a result of 154 aviation accidents, including 16 disasters, approximately 60 aircraft and helicopters were damaged, and we suffered approximately 10 million rubles in losses. There were 818 and 115 killed. Undoubtedly, we have taken a step forward. But, in turn, there were 13 percent more accidents in 1987 than last year but fewer people died—47. Here much depends on the seriousness of the accidents and the passenger capacity of the airliners involved in the disasters.

Last year, nine percent of Aeroflot aircraft accidents occurred due to airliners' design or manufacturing deficiencies while pilot error and ground crew servicing errors produced 83 percent. The conclusion thrusts itself upon us that there is weakened attention to the human factor and to social problems. Scientists are studying the issue but it is already clear: Serious restructuring is needed here. The situation is currently such that we cannot get by without a comprehensive systems approach.

[Garavskiy] During the tense days while eliminating the aftermath of the earthquake in Armenia, I happened to have a conversation at the USSR Main Common Air Traffic Control System Center. Experts there sharply raised the issue of the need for improving the air traffic control system in the nation and named a number of problems requiring immediate resolution. I know that these problems were later analyzed and also studied at USSR Gosavianadzor.

[Lartsev] Actually, with the growth of air traffic volume, the currently operating air traffic control system requires improvements. Thus, it is impossible to consider the complicated territorial departmental division of air space as normal when the borders of zones of responsibility do not always coincide. This really complicates organizing controlling agencies cooperation and leads to a loss of effectiveness in relaying information about the air situation.

And let us take departmental opposition on the question of conducting a common equipment policy. Here lack of coordination leads to duplication and dissipation of technical resources, capital investments, material and human resources. It is no secret that air traffic control (UVD) system resources are basically not standardized and frequently do not provide the capability for their joint operation and utilization. And, besides that, the lack of common standard and technological documents, a common radar field, and much else too, inflicts great damage on the nation's economy and defense interests, lowers the level of flight safety, and complicates operation of equipment resources and training of servicing personnel.

[Garavskiy] Just where is the way out of the existing situation?

[Lartsev] Practically insurmountable interdepartmental barriers and an ES UVD [Common Air Traffic Control System] structure which does not meet contemporary requirements are the main causes of the shortcomings listed above. The only way to radically change the situation, in the opinion of both military and civil aviation experts, is through the gradual creation of an extra-departmental state system for air space utilization. Moreover, the first step, a transitional stage for creating this system, can be implemented in the 1989-1990 period.

[Garavskiy] Sergey Semenovich, you frequently use the word departmentalism during this conversation. And, obviously, it is no accident that USSR Gosavianadzor examined a series of issues tied with joint basing airfield (ASB) operations and ensuring flight safety at an expanded session.

[Lartsev] Many common problems for our aviators are focused at joint basing airfields. For some reason, the discussion at the committee was also critical and specific. During the last two years, approximately 40 percent of airfields having joint basing operations have been inspected. There has been progress in more precise compliance with regulations for maintenance, operations, and the air space utilization system in areas near these airfields. But the number of aviation accidents and incidents is, alas, not being reduced here for the time being. There are cases where the USSR Air Code and the USSR Airfield Utilization System Statute is being violated. At the same time, individual standard departmental documents of the USSR Ministry of Defense and USSR MGA are obsolete and need revising. Common requirements have still not been developed for joint basing airfields.

There is no precise definition of ASB senior aviation chiefs' responsibilities and rights in existing guiding documents for organizing simultaneous flight operations for different ministries and departments' airliners. Requirements for locating joint air traffic control group specialists in common halls and construction of standard control tower buildings are being slowly carried out on a proportional basis.

[Garavskiy] One of our readers reported that he saw a missile launch through an aircraft window. Or did it just appear that way to him?

[Lartsev] Alas, no. At the very least, he could have seen it. Individual test ranges in the Far Eastern, Siberian, and a number of other military districts are located in close proximity to joint basing airfields. Cannon and machine-gun firings and missile and rocket launches frequently occur near airline routes and local airline landing patterns. This creates a threat to flight safety.

The situation is aggravated by the fact that there is no UVD specialist operational communications with the test range command staff at some locations.

[Garavskiy] But this is really...

[Lartsev] I understand your [concern]. I agree. Gosavianadzor is required to restore order at the most categorical level. I will tell you frankly that this issue is being placed under strictest control.

[Garavskiy] KRASNAYA ZVEZDA has repeatedly reported about the unsatisfactory organization of the restricted area system at ASB's.

[Lartsev] This is also a problem. At many inspected airfields, barriers are damaged and there are uncontrolled pedestrians and vehicles passing through the airfield. And there are no barriers at all at two joint basing airfields in the Transcaucasus Military District.

Cases of unauthorized access to air strips by motor vehicles and by military unit personnel cause concern. The statistics are alarming. Forty three incidents have occurred at ASB's due to traffic regulation violations by service vehicles and servicemen for the period from January 1987 until the present. "Prize-winning" locations by Armed Forces Branches were distributed as follows: In aviation, PVO—22, VVS—20, and Naval Aviation—1. There were five incidents just at the joint basing airfield where Lieutenant Colonel A. Garbuz (PVO Aviation) is the senior aviation chief.

I must also say that, due to a lack of departmental coordination, radios on military service vehicles have different frequencies than civilian vehicles. Steps are being taken to eliminate this technical absurdity.

[Garavskiy] It is obvious from our conversation that other shortcomings also remain beyond "personnel" and we cannot discuss them all in one newspaper article. On behalf of all KRASNAYA ZVEZDA readers and air passengers, I wish you success in your difficult and responsible activities.

Round-Up on MIG-23M Crash in Belgium

Col Gen Brosuk Commentary

18010835a Moscow PRAVDA in Russian
6 Jul 89 Second Edition p 6

[Article by V. Izgarshev: "Thunder Out of a Clear Sky: What Happened With the MIG-23"]

[Text] Yesterday the telephones never stopped ringing in the editor's office. What happened? How did a warplane of the Northern Group of Forces, which is temporarily in the Polish People's Republic as we know, end up in Belgium, and even manage to hit a house when it fell?

Colonel General of Aviation A. Borsuk, deputy commander-in-chief of air forces, with whom I had served in the Northern Group of Forces a long time ago, had just finished talking on the telephone with the pilot, the flight operations officer and the unit commander.

"I could draw you the overall picture, but it is simply impossible right now to tell you exactly what happened," Anatoliy Fedorovich said to me. "A commission of specialists has taken off for the unit. A group of officers is also being sent to Belgium. Such that the circumstances will be fully clarified in a while. But for the moment, I can tell you only what I learned from the words of the pilot and other comrades."

The fourth of July. A flying day. Excellent weather, not a cloud in the sky. The simplest weather conditions there could ever be.

Colonel Nikolay Skuridin completed a check flight in the practice area aboard a two-seater combat training airplane—a dual trainer. The landing approach. The landing. All flight elements were uneventful.

And then the second sortie. At 1118 hours. Aboard a MIG-23 fighter. This is when it all happened. After his takeoff, Skuridin heard a sharp clap at an altitude of 120-130 meters. Speed dropped, and the craft began losing altitude. The pilot reported what happened to the ground. Observing the MIG's takeoff, the flight operations officer noted that the "afterburner cut off." The decision in such cases is to eject.

Skuridin bailed out at an altitude of a little more than a hundred meters.

The flight operations officer reported that after it was abandoned by the pilot, the airplane seemed to stop losing altitude and even "climbed slightly" as it headed for the horizon and "disappeared from view"....

At 1200 hours the acting aviation commander of the Northern Group of Forces, Major General of Aviation V. Ognev, reported the aircraft accident to the Air Force Command in Moscow, saying that the ejecting pilot survived, and that steps were being taken to investigate the incident. "But where is the airplane?" Moscow queried. "It fell into the sea, doing no damage." What he meant was that it had supposedly struck neither a ship nor a fishing boat.

After some time news of a Soviet warplane crashing in Belgium arrived like thunder out of the clear blue sky.

According to a report from Brussels by our correspondent Yu. Kharlanov, at 1055 hours local time residents of the village of Kooigem, located between the Belgian cities of Kortrijk and Tournai, heard the thunder of an explosion, and then several more blasts. Witnesses rushing to the site were astounded to see that an airplane had

slammed into the farm belonging to the de Lar [transliteration] family. Its tail bearing the symbol of the Soviet Air Force was sticking up out of the ruins. The owner's 18-year-old son, Vid de Lar, was in the house at that moment. He was killed.

Here is one other detail. Two American fighters that had taken off from the base at Soesterberg in the Netherlands picked up and escorted our MIG at an altitude of over 10,000 meters. On seeing that the cockpit was empty and the canopy had been jettisoned, both F-15's left.

Such are the facts. Understandably the commission will sort all of the details out, and determine who is to blame for what, and for the moment it would be premature to get ahead of ourselves and offer any kind of hypotheses. But it must be said that here as in many other serious incidents, the signs of carelessness and negligence are obvious. This can be confirmed as a certainty without even waiting for the conclusions of the commission.

What was this report that the airplane had fallen into the sea? What was it based on?

And there was one other circumstance. Colonel Skuridin is not an ordinary pilot but a responsible political officer with a large amount of experience behind him. He graduated from a higher pilot aviation school in 1969. He had clocked 1,765 hours, including over 500 aboard the MIG-23. But here is one interesting fact.... The last time Skuridin had flown was on 27 March. After that he was away on temporary duty, and then on regular leave. A lengthy break in flying resulted.

It would be interesting to know if the colonel would have allowed an ordinary pilot to fly solo after only one check flight in a dual trainer? Even if this were a first class pilot?

All too frequently aircraft accidents in the air force are the fault of those who are called upon to stand guard over the laws of flight duty and set a personal example for others.

BRUSSELS, 5. (TASS). Soviet Ambassador to Belgium F. P. Bogdanov brought an official apology today to Belgian Minister of Foreign Affairs M. Eyskens [transliteration] in connection with the disaster involving a Soviet fighter that crashed in the vicinity of the Belgian city of Kortrijk on Tuesday. He expressed sympathy for the family of the Belgian citizen that was killed in the incident, and announced that the Soviet Union will compensate for material losses suffered by the crash. M. Eyskens emphasized the need for improving the system for warning interested parties in the event of such incidents.

Pilot Interview, Second Fighter Kills Polish Glider Pilot

18010835b Moscow KOMSOMOLSKAYA PRAVDA in Russian 7 Jul 89 pp 1,4

[Article by A. Dyatlov: "While the 'Black Box' Is Still Silent"]

[Text] Yesterday afternoon Soviet and foreign journalists were able to meet in the press center of the USSR Ministry of Foreign Affairs with Lieutenant General of Aviation Ye. I. Shaposhnikov—the first deputy commander-in-chief of the air force, with representatives of the air force and the air defense forces, and most importantly, with Colonel N. Ye. Skuridin (accompanying photo [not reproduced]), who was the pilot of the MIG that crashed in Belgium.

"This incident was one of the most improbable. Unique"—The reader will have to agree that the briefing on the accident involving the country's air force began in a nontraditional manner. This was an accident that is posing more questions today than there are answers for.

Today, in the estimation of representatives of the air force and the air defense forces, the picture is developing as follows: The airplane "left" the airfield in full readiness, as they say. Even the IFF was turned on. Although "our side's" air defense services picked up the fighter as it climbed into the sky, they were rather unconcerned: Many training flights were being flown that day both where the ill-fated MIG had taken off, and nearby. Such that no one was especially concerned about it, until the fighter reached the border between the GDR and the FRG. And when it crossed the border, it was picked up by NATO air defense forces.

Unfortunately prior to the moment "that side" informed us about the airplane, we understood from the briefing that our command of the Northern Group of Forces believed that the airplane had fallen into the sea. This is what was announced to the command of the Northern Group of Forces.

And in the meantime it ticked off one air mile after another.

How does the pilot, Colonel N. Skuridin, assess the situation?

"This was my second sortie that day," the pilot began calmly (but we could well see the effort this calmness took!). "Everything was going all right until an altitude of around 90 meters. Then I heard and felt a clap in the aircraft's left air intake; speed immediately dropped from 550 to 350 kilometers per hour, and the engine rpm dropped sharply as well. I communicated that I had made the decision to eject, because everything pointed to engine failure—you couldn't even hear it going! I received a command from the ground: "One-Three-Two, K...."—that is, eject! As I floated down beneath my

parachute I saw black smoke trailing behind the turbine of the descending airplane.... Except for hurting my hand, I landed safely. Prior to ejecting I turned the fighter in the direction of the sea. But who could have known that it would continue to fly? Had I been able to foresee the consequences, and especially the death of an individual, I would not have abandoned the airplane for anything."

"How do you assess your actions?"

"I acted in accordance with the instructions...."

This was confirmed by representatives of the command.

"I would also like to say," Skuridin said, "that I myself and my family, comrades, feel deeply about the tragedy. I wrote a letter to the family of the Belgian boy who died, but I know that no apologies can diminish the bitterness of the grief...."

Lieutenant General Shaposhnikov added that we were prepared to pay the Belgian side for all of the material loss that had been suffered.

But what sort of compensation can there be here? This is precisely what we talked about with journalist friends of ours yesterday, when we received a report that another of our fighters rammed a glider from a local aeroclub over Poland. The glider pilot died.

Question from KOMSOMOLSKAYA PRAVDA: "What does the air force command have to say about this second tragedy in the sky over Europe?"

"It is now difficult to say who violated the flying regulations," said Ye. I. Shaposhnikov. "A joint commission has been formed out of representatives of the Soviet and Polish air forces.

"I would like to add," broke in Yu. A. Gremitskikh, deputy chief of the information administration of the USSR Ministry of Foreign Affairs, "that I talked on this subject with the first deputy chief of General Staff, Comrade Omelichev. He said the following (let me emphasize that this is his opinion, and not the opinion of the commission): There was apparently a mutual altitude violation. The glider had climbed from 600 meters, where he was permitted to fly, to 1,000 meters, while our airplane did the reverse, descending from a permissible altitude of 1,200 meters to an altitude of 1 kilometer for some reason, which is where the collision occurred.

Chance occurrences, coincidences....

Yes, they can occur.

Nonetheless. No chance occurrences can explain situations in which airplanes "disappear" from the sight of services obligated to keep watch over them in the sky both day and night. Situations in which no one in two

countries is aware of the progress of a wayward warplane, and in which it is learned that it had crashed in Belgian only from "other sources," and not from one's own information system, warning system, or whatever else it is called in the troops!

How can we talk about chance occurrences when warplanes fly over the roofs of homes? Peaceful homes.

F-15s Broke Off Intercept of Pilotless MIG-23M

18010835c Moscow ARGUMENTY I FAKTY in
Russian No 27, 8-14 Jul 89 p 8

[Article by S. Yuryev]

[Text] A report that a Soviet warplane had crashed in Belgian territory was televised on Tuesday. Can you provide any details on this incident?—S. Sverdlov, Lenin-grad.

As was reported earlier, on 4 July a Soviet MIG-23M fighter of the Northern Group of Forces under the control of Pilot 1st Class Colonel N. Skuridin was flying a training sortie over Poland. Suddenly the airplane began losing speed and altitude (due to technical problems, in the opinion of specialists). The pilot ejected, and survived. The airplane continued to fly in a westerly direction without a pilot, in a "stabilized" attitude, traveling about another 900 km, until fuel ran out.

The flight of the MIG-23M occurred over the GDR, the FRG, the Netherlands and Belgium at a speed of around 460 km/hr. Two American F-15 fighters scrambled on alert saw no pilot in the cockpit flying the Soviet military airplane, or a canopy, or any missiles. They broke off the intercept hoping that the MIG would fall into the English Channel.

It was reported to us from the information administration of the Belgian Ministry of Defense in Brussels that the MIG fighter had crashed at the village of Kooigem near the city of Kortrijk 15 km from the Franco-Belgian border. This is one of the most densely populated regions of Belgium. The home of a local farmer de Lar was completely destroyed, and the owner's son, 18-year-old Vim de Lar, who was at his father's place on school vacation, died as a result of the airplane crash. A special military commission traveled to the site of the plane crash. The USSR's Ambassador to Belgium F. P. Bogdanov extended an apology to the Belgian government in connection with the incident and confirmed the Soviet Union's readiness to compensate the Belgian side for losses suffered by the plane crash. Belgian Minister of National Defense G. Coeme announced that in the near future his country will submit a proposal to NATO executive organs on creating a special warning service for states of the North Atlantic bloc and the Warsaw Pact in order to prevent such "uncontrollable" flights in the future.

NATO Notes 'No Direct Contact With Warsaw Pact, USSR'

18010835d Moscow KOMSOMOLSKAYA PRAVDA in
Russian 6 Jul 89 p 1

[Article by K. Olegov, A. Chursin, A. Baranov and V. Shutkevich: "Flying Without a Pilot: Chronicle of an Accident"]

[Text]

1215 Hours—Moscow, by K. Olegov

As was reported yesterday, a Soviet pilot serving in one of the air units of the Northern Group of Forces ejected from his MIG-23 fighter on 4 July during a training sortie over Poland. After the pilot ejected the airplane continued to fly on its own and crashed in Belgian territory.

I asked specialists from the Experimental Design Office imeni A. Mikoyan who had developed this swing wing fighter some time ago to comment on this unique incident. It was reported from the special design office that we do not as yet have accurate information on exactly what happened. A special commission traveled to the site of the accident in order to analyze the information from the "black box" and establish the causes of the accident. All that is known is that the MIG had flown "solo" over 800 kilometers. Such a case had never occurred before in our experience.

Unfortunately it is also impossible to say precisely right now whether the airplane was flying on autopilot at low altitude or in stabilized angle configuration. In either case the most probable cause of the fighter's crash was apparently complete exhaustion of fuel. Do not forget that during almost the entire 800-kilometer "trip" the cockpit was uncovered, and this might also have had some effect on the flight conditions.

1610 Hours—West Berlin on the Line, by A. Chursin

The lines of the telegraph message recalled a combat summary. On 4 July, FRG air defense radar detected an airspace violation by an object flying at an altitude of 12,000 meters. Two American fighter-interceptors were scrambled on alert from a NATO military base. The message received on the ground astounded the military specialists: A MIG-23 warplane with Soviet identification markings was flying without a pilot.

According to a NATO representative the pilots of the American aircraft were ordered to escort the "lost" MIG. In the opinion of the experts the great altitude and low speed excluded hostile intentions. Moreover visual observations did not reveal any armament—air-to-air missiles—on the pilotless fighter. Nonetheless the combat alert kept thousands of people in a state of tension. The plane, you see, was flying over densely populated regions. The pilots of the American interceptors were

ordered to shoot down the MIG only in the extreme case. Lacking adequate information, NATO military specialists nonetheless harbored the hope that the airplane would fall into the English Channel after it exhausted its fuel supply.

The MIG began losing altitude over Belgian territory and fell not far from the French border, crashing into a residential building. A young person was killed.

A detailed investigation of this extraordinary accident will doubtlessly answer all of the questions. Local reviewers note that the restraint and reasonable caution in the reaction to the airspace violation by NATO prevented even worse consequences. It would be difficult to imagine what would have happened, had such an event occurred at the peak of the cold war.

On the whole, objectively reporting the incident involving the Soviet airplane, Western press and television are expressing an open rebuke directed at the Soviet Union for failing to provide prompt information. A certain NATO military official regretfully asserted in a television interview that in this particular case direct contact had not been established with military representatives of the Warsaw Pact and the USSR.

Much has been done in recent times to reduce the military confrontation in Europe, but life once again persuades us that the peace is not ensured against chance occurrences. More-decisive steps must be taken on the path of disarmament and development of contacts between military representatives, which would reduce the limits of the risk. This was once again brought home by the tragic incident involving the MIG.

1800 Hours—Copenhagen on the Line, by A. Baranov

The tone of the commentary offered by Western and, in particular, Danish mass media in regard to the incident involving the Soviet MIG-23 fighter may be described as serious but sufficiently calm.

"We barely avoided an incomprehensible catastrophe. It is hard to imagine what might have happened, had the airplane crashed in the industrial districts of Lille," said Belgian Interior Minister Louis Tobback.

It was noted in a statement from NATO representatives that the American pilots were ordered not to shoot down the Soviet fighter over densely populated regions, particularly out of a concern for setting off weapons aboard the plane.

Some of the mass media expressed bewilderment as to why the Soviet side did not itself undertake any measures to interrupt the flight of the unoccupied airplane. The Danish newspaper BERLINGSKE TIDENDE [transliteration] also carried a statement of one of the high-ranking officers of the Danish Air Force, who said that in the event of trouble similar to that encountered

aboard the MIG, Danish pilots are required by the instructions to set the airplane's autopilot prior to ejection in such a way as to direct the plane toward desert terrain or the sea.

The same newspaper described a similar incident that occurred 20 years ago with a West German fighter flown by a pilot who lost consciousness while in the air. The uncontrolled aircraft flew over a number of Warsaw Pact countries, after which it was turned in the direction of Scandinavia by air currents, and crashed in northern Norway.

1945 Hours—Warsaw on the Line

Yesterday, Polish radio and television and the evening newspapers reported the accident involving the Soviet fighter. Warsaw's EKSPRESS VECHORY [transliteration] noted that the pilot was forced to eject due to trouble aboard the aircraft during a training sortie in the vicinity of Kolobrzeg. Kolobrzeg is a small resort city on the Baltic coast. There are an especially large number of vacationers there at this time of the year.

At Press Time: Warsaw—2225 Hours, by V. Shutkevich

As was reported yesterday by Poland's telegraph agency PAP (with reference to a press liaison officer of the Polish Defense Ministry), at 1504 hours a Soviet airplane from a military unit of the Northern Group of Forces lost control during a training sortie in the vicinity of the city of Lubin (Legnica Province) and collided with a Pirate class glider.

M. Mayevski from the Lubin Aeroclub, the glider's pilot, died as a result of the collision.

The Soviet pilot was able to land his airplane.

From the TASS Teletype

Comments from Colonel General A. Borsuk, deputy commander-in-chief of the air force:

"The airplane was piloted by Military Pilot 1st Class Colonel N. Skuridin. I spoke with him on the telephone. He has already undergone a medical examination after ejecting, and has been certified to be in good health. He is an experienced pilot. He has flown a total of over 1,700 hours in airplanes of all types, and 527 hours aboard the MIG-23.

"The picture appears to be as follows.

"The plane was carrying one ammunition load for a 23-millimeter cannon. No other ammunition was aboard.

"According to the pilot's report, after takeoff he heard a clap in the vicinity of the air intake at an altitude of around 130 meters while the engine was in afterburner

mode, and he sensed a decrease in engine thrust and a loss of altitude. He was also able to notice a decrease in engine rpm and speed. The pilot reported engine failure to the flight operations officer and ejected at an altitude of around 100 meters.

"The flight operations officer observed extinction of the afterburner flame and a smoke trail behind the engine as well as the airplane's loss of altitude following the pilot's report. After the pilot ejected, the airplane stopped its descent, and disappeared from view at a distance of 4-6 kilometers at minimum altitude.

"Development of the accident situation upon takeoff may be hypothetically explained as follows: Spontaneous shut-down of the afterburner caused a sharp decrease in thrust, speed and altitude, and was perceived by the pilot to be an engine failure, which compelled him to eject.

"Later on the plane, which was in "stabilized" configuration without afterburners, continued to fly until complete exhaustion of fuel, having traveled around 900 kilometers. The final conclusions will be made by a commission that has already been convened under Lieutenant General of Aviation Ye. Rusanov, chief of the aviation flight safety service of the USSR Ministry of Defense. The matter of his travel to Belgium is presently being taken care of.

"All of us Soviet aviators are deeply sorry for what happened."

Warsaw Pact Failure to Down Aircraft Questioned *18010835e Moscow TRUD in Russian 6 Jul 89 p 3*

[Article by TRUD correspondents V. Boykov, A. Trushin and I. Pulatov: "MIG-23 Flies Over Europe Without a Pilot"]

[Excerpts][Passage omitted] What happened in the city of Kolobrzeg (Poland)? We went to the USSR defense minister with this question. It is known that our military department shares information with great reluctance. This time the leadership of the General Staff passed us off to the USSR Ministry of Foreign Affairs. Nor did the recently established press center of the Defense Ministry have any information. Finally, we were told by the air force flight safety service that a commission had left for Poland under the leadership of the chief of the service, Ye. Rusanov. He is the one who will make the final conclusions on the causes of the "aircraft accident."

[Passage omitted]

A. Borsuk, deputy commander-in-chief of the country's air force, added that the uncontrolled MIG had been in the air for 1 hour, 20 minutes and had flown around 900 kilometers during this time. Whether or not its autopilot was on has yet to be clarified by the commission. The question as

to how it was able to fly to Belgium is now being addressed. The fighter was equipped with an automatic flight recorder. It may possibly provide answers to the questions that have arisen.

According to reports by Belgian mass media the incident unfolded in the following manner. At approximately 0940 hours local time NATO radar detected a violation of the GDR-FRG air border. An unidentified airplane was flying at an altitude of 12,000 meters. When it was interrogated as to its origin, no answers followed. Then two F-15s were scrambled on alert from an American air force base located near the Dutch city of Utrecht. The interceptors met the unidentified airplane over West German territory at 1002 hours.

The American pilots recognized the Soviet MIG-23 without difficulty and established that its cockpit was empty. On exhausting its fuel, the fighter crashed into a residential building. As a result of the disaster, which occurred at 1037 hours local time, a 19-year-old boy died.

An entirely reasonable question arises: Why was the uncontrolled airplane not shot down over Polish or East German territory by Warsaw Pact air defense resources? After all, the consequences of the accident might have been far more tragic, had the airplane struck a chemical plant, a train carrying passengers or simply a busy city street. The NATO pilots, who were also asked this question, declared that they had permission to do this, but they wanted to shoot the MIG down over the sea, toward which it was heading.

Commenting on the incident, Belgian defense minister G. Coeme stressed that unfortunately neither side is insured against such incidents. Moreover the Warsaw Pact and NATO do not have their own "red telephone" by which they could immediately inform each other about such incidents. Belgium therefore intends to immediately approach the leadership of the North Atlantic alliance with the issue of starting talks on creating "crisis centers" having the purpose of assisting in the prevention of disasters.

Our military ministry is deferring comment for the moment.

Helicopter Crash Near Vladivostok *18010860*

[Editorial Report] Moscow IZVESTIYA in Russian of 26 July 1989 published on page 6 an article by IZVESTIYA Correspondent Yu. Balakiryev datelined Vladivostok, and entitled: "Catastrophe on the Road."

The article states that on the previous Saturday a military helicopter crashed on the road crossing the Muravyeva-Amurskaya peninsula. The accident took place in heavy traffic. The helicopter's stabilizer struck the front of a bus. It then crashed onto a Moskvich automobile. The driver, his wife and two children were killed along with the pilot. "The circumstances of the tragedy are being investigated."

Nuclear Sub Accident Repairs, Populace Concerns Reported

*18010900 Moscow KRASNAYA ZVEZDA in Russian
15 Jul 89 First Edition p 2*

[Report by Captain 1st Rank P. Ishchenko: "The Submarine. The Reactor is Shut Down"]

[Text] Northern Fleet—Technical work continues on the submarine on which the primary circuit of the nuclear reactor was ruptured [razgermetizatsiya]. The reactor was shut down by periodic flooding [prolivka]—four times a day.

"This was associated with the fact that when at sea the reactor was operating at high power loads and it took quite a long time to shut it down," explained Captain 1st Rank Yu. Magakov, one of the leaders of the technical section.

The personnel of this submarine undergoing the mandatory medical examination have all been discharged from the hospital, to the last man. No deviations from the norm were found in the state of health of the submariners. The crew is taking planned leave in one of the military sanatoria.

At the submariners' garrison for the first time since the submarine returned to base with the broken-down reactor alarming rumors have been spreading about the possibility of radioactive contamination of the environment. Many of the inhabitants are interested in knowing whether they should send their children away. But there are no grounds at all for the rumors. The garrison command has three times gathered together the inhabitants of the settlement to explain the situation to them, and medical and other experts have addressed them. Special reports have been broadcast over the local radio station. It has been announced that anyone who has any doubts should go to the polyclinic for an examination. A total of 86 persons have done so. Their misgivings about possible radioactive irradiation proved unfounded in all cases.

"People have been convinced that there is no danger," says the acting chief of the formation's political directorate Captain 1st Rank M. Yachmenev. "And the best proof of this is the large puffball mushroom found the other day. It had grown on a mound not 200 meters from the pier where the submarine was berthed. As is known, puffballs are very sensitive to radioactivity. And the most fastidious analysis showed that the mushroom is absolutely pure.

Weakness of Civil Defense Response to Disaster
18010805 Moscow KRASNAYA ZVEZDA in Russian
16 Jun 89 First Edition p 2

[Article by Reserve Colonel V. Frolov, candidate of technical sciences: "Preparedness for Each Day, or What Emergency Situations Teach"]

[Text] The Marshal Nakhimov which disappeared into the deep, a series of train crashes, the Chernobyl AES accident, the explosions in Sverdlovsk and Arzamas, and the earthquake in Armenia... Why are all of these different events formed up in one line? I will explain. But first of all, I will say: Those who visited the sites of the tragedies in the first days, saw a "lunar landscape" around them which was impassable by normal wheeled transport, homes "rammed" into the ground right up to the roofs which became tombs for hundreds of thousands of people, and the cries and moans of the injured who lost not only their own blood but also their closest loved ones. And then the question should not appear to be unanticipated: "But what should and what could civil defense have done under these conditions?"

N.I. Ryzhkov, member of the CPSU Central Committee Politburo and chairman of the USSR Council of Ministers, once bitterly pointed out: "They say you learn who your friends are during a crisis... I say a bit more—you also learn who the leader is during a crisis..." Unfortunately, quite a few leaders, putting it mildly, turned out to be "not up to the mark." And really in the existing situation, each of them is also a civil defense leader of a national economic facility entrusted to him—the progressive square of our economy.

Events in Armenia revealed flaws in the training of even highly skilled experts—leaders of industry. As M.I. Kutuzov, our great leader would say, they "bashfully" took control and were late making decisions which could not be delayed.

They are teaching a special discipline called "civil defense" at all military departments of civilian VUZ's (and there are about 900 of the latter throughout the nation). It is studied not only in our nation but in the developed capitalist powers and even in developing countries of the Third World. It is called several different things there: "Civil Preparedness," "Population Safety," or "The National Self-Defense System," but its essence does not change. It teaches one how to act—precisely and knowledgeably—in emergency situations: If there is a fire in a high-rise hotel, a natural disaster, or a major industrial accident.

Training the population, including students and economic leaders, about civil defense is part of the total planned personnel training process for increasing their qualifications and a sort of "copy" of the nation's educational system. Unfortunately, even here we have not succeeded in avoiding definite negative trends and a

gap between words and the serious material reality of our time, a passion for the notorious "gross output" approach, "paper defense," and "mythical commanders of formations."

There are many causes of this. One of them is that the "Higher Educational Institution Student Civil Defense Training Program" is reduced to study of practically a single scenario without any basic differentiation for natural science and humanities types of VUZ's (departments) and objectively results in violation of the principle of training student youth for action in extreme situations. This, naturally, does not promote a deepening of civil defense knowledge within the limits of future professions and it also does not stimulate scientific work in the interests of civil defense. And much here has not been completely researched.

In our times, serious study of any issue is unthinkable without the application of the latest scientific and technological achievements and, in particular, in the area of information systems and computer processing of masses of data. For the time being, there is not even an intent to use computers or computer equipment assets during course development of the VUZ civil defense program. How sad it is but the fact remains that in the age of satellites, electronics, super-computers, and precise instruments, the main implements for decontaminating populated areas in the Chernobyl AES area were these very antiquated assets: The bucket, the rag, and the shovel. Knowledge, including higher educational institution knowledge, turned out to be "poorly prepared" in civil defense. What is more advantageous? To decontaminate a home or to build a new one? To cover land with a dust catching film or to prepare a work front for burial of produce which is a declining danger? How do we correctly calculate the damage from a natural disaster and the resources needed for eliminating its consequences?

These are far from idle questions. I suggest that answers to them must be given base on exhaustive socio-economic validity and on a legal basis. Incidentally, our close neighbors, including the NATO Bloc countries, are devoting a great deal of attention to legislative consolidation of civil defense. Even in such a small country as Norway, there is a law which obliges not only men who are not in the Army but also women under 55 years of age to serve in special formations.

A propaganda campaign, which had arisen in the West at one time, whose basic argument was: "The USSR is developing its civil defense since it wants to sit out a nuclear war in comfortable shelters," had a clearly provocative nature because development of civil defense does not contradict the UN Charter. An International Civil Defense Organization also exists. However, the idea about the ever growing function of civil defense as a guarantor of a nation's safety in NTR [Scientific and

Technical Propaganda] conditions, which were clearly designated global issues was lost behind the denunciations of bourgeois propaganda's conjecture.

While eliminating the consequences of the earthquake in Armenia, the aid of rescue and other services would have been a bit more effective if not only professionals had taken part in it (they saved approximately 90 people) but specially trained youth subunits who were gaining experience. Naturally, we also need to take the psychological factor into account. Over the course of many years, a sort of stereotype has taken shape about economic leaders: As soon as we begin talking about civil defense, as far as I am concerned we are talking about purely military affairs. And I think the reason for this is that there is not one word stated about civil defense in the Laws on State Enterprises (Associations) and on cooperatives.

The explosion of a dangerous gas storage area and the flow of poisonous liquid from the ruptured tank... Ask anyone: "What do we need to do if a poisonous cloud begins to creep into a city quarter or a village? Where is

your personal gas mask stored (if you have one)?" And, you will hear a persuasive answer for sure. "But will I not obtain one the way I did in 1941?" Who will explain why in the era of steam engines and propeller aircraft anyone who wanted a gas mask could obtain one but in the age of spaceships and AES's this consumer good has turned out to be in very short supply just like soap powder and soap bars?

We need to recognize that the development of civil defense requires assets, substantial assets. Society must be totally informed about this. However, to economize on this is to economize on safety. Let us think what the result of the Chernobyl AES accident would have been if the notorious RBMK [High Capacity Channel Reactor] type reactors had been equipped with protective tent shells? They saved half a million rubles and now only pure expenditures for eliminating the consequences are approaching 10 billion rubles. And this is not considering irreplaceable losses...

But we need [civil] defense every day.

Shortcomings, Lack of Planning in Current Conversion Effort

18010841 Moscow LITERATURNAYA GAZETA in Russian 12 Jul 89 p 11

[Article by Aleksey Izyumov, Candidate of Economic Sciences, senior research worker in the Institute of the United States and Canada, USSR AN [Academy of Sciences]: "Conversion? Conversion! Conversion... In the File of the USSR Supreme Soviet." The first paragraph is an editorial introduction.]

[Text] It was not long ago that few people in our country knew the meaning of the word "conversion." Now something is said and written about Soviet military economics almost every day. In particular, a heated discussion went on at a meeting of the USSR Supreme Soviet during the confirmation of Minister of Defense D.T. Yazov. And this is understandable. On the one hand, achievements in our foreign policy for the first time in many years have created, instead of the recurrent pretext for escalating military expenditures, a real possibility for reducing them. On the other hand, there are strictly internal reasons. It is quite natural that, in contemplating ways to get out of an economic crisis, we have started to look at heretofore immune items of the state budget. We began to hear appeals more and more frequently from economists, ecologists, and writers to "trim military expenditures," "to remove unneeded fat from the armed forces," and "to review the space program..."

From the Time of Witte to Our Days

This is not the first time that the country has been faced with the problem of conversion. Back in the 1890-1905 period, at the insistence of Witte, Russia's military expenditures were cut from 30% to 15% of the state budget. In Soviet times, the first major conversion was conducted between 1920-1924. In those years the numerical strength of the Red Army was reduced from 5 million to 562,000 men! By comparison with that 10-fold reduction, today's—by 12 percent—seems quite moderate. But the military and political situation around our country then was much more complicated than today's.

The second conversion episode in Soviet history was the second 5-year plan after the end of the Great Patriotic War. Enterprises and industries that had been mobilized to help the front were returned to normal peacetime production. This conversion was conducted with specific methods peculiar to that time. And indeed, even the Stalinist conversion was not 100 percent successful: it is enough to mention what kinds of problems the hundreds and thousands of soldiers who had not acquired a civilian specialty because of the war, and who frequently were even left without a roof over their head encountered upon returning from the front.

Many especially from among those who are retired will recall our third conversion. It was conducted at the initiative of N.S. Khrushchev at the end of the 1950's and the beginning of the 1960's, and it was expressed mainly in a radical, unilateral reduction of the armed forces—in round figures more than 2 million persons. What is more, we will note that the Khrushchev reduction was greater than the current one, despite the fact that we were far from parity with the West at that time.

The Khrushchev conversion gave tangible benefits to the people: It helped increase pensions, and it sharply broadened residential construction, and so forth, but it was conducted, like the Stalinist one, exclusively by command methods, without a well thought out plan and the necessary considerations for social features. It is not accidental that our military holds a grudge against Khrushchev up to the present time—many were discharged from the armed forces without warning, sometimes not allowing them to complete even the remaining short service that was needed for a pension.

The current conversion should, it would seem, avoid the mistakes of the past. However, more problems are coming up.

At first glance, everything is going well. The military budget and military production are being cut. Hundreds of military plants and the KB [design bureaus] were assigned civilian production tasks, the armed forces are being cut, freeing manpower that is in short supply, and students are no longer being pulled away from their academic studies. The quantitative parameters of the measures announced are being published. During the years 1990-1991, cutting the military budget by 14 percent, or by R10 billion is contemplated, and in total for the current 5-year plan the savings will be R30 billion. While now the share of military expenditures in our gross national product is about 9 percent, then in 1995 it should be reduced by a factor of 1.5 to 2. At the same time, the portion of civilian production of our military enterprises, which now constitutes about 40 percent, should increase to 60 percent by 1995. The contribution of the defense industry to the output of cultural and everyday commodities will increase from today's 22 percent to 33 percent by the end of the current 5-year plan. A big return is expected from the "military" cosmos, in particular, in the area of installing telephone systems in the country.

A lot is already being done. The production of metal-working machines, drilling equipment, and electronic components has been arranged for several plants that produced medium range missiles. SS-20 transporters are being successfully reequipped as powerful cranes in a joint Soviet-West German enterprise in Odessa. Our VVS [Air Forces] are being linked up with civilian transportation—this year military transport aviation will carry 50,000 tons of domestic cargo. Moreover, an idea was brought up in scientific circles to organize a new passenger airline with forces of the VVS. This would not

only give work to hundreds of military pilots and technical specialists who have been discharged in connection with recent reductions, but it would also finally break the oppressive monopoly of Aeroflot.

Among other measures of the current conversion is the sale of army property, conducted by organizations of rear services supply. In the first stage of these sales to civilian users, equipment and materiel amounting to a half billion rubles will be sold, including 20,000 motor vehicles, small boats, radio equipment, and petroleum oils and lubricants. The benefits are tremendous—you see, not only is demand satisfied, but there is also an opportunity to help with the budget deficit.

Costs of the Approach

Given the abundance of planning departments, there is still no conversion concept or program. True, the press has repeatedly announced that work on the composition of a national conversion program was apparently started. Working groups for conversion planning were set up in the CPSU Central Committee, the Ministry of Defense, the MFA [Ministry of Foreign Affairs, Gosplan [USSR State Planning Committee], and a number of other ministries and departments. However, neither the character of the work of these groups, nor their composition, nor any kind of plans or recommendations have yet to become the property of the public. Nor was anything said about them at the congress. It has to be assumed that the work is in the preliminary stage.

Meanwhile, in the absence of well-thought-out plans, conversion, nonetheless, is going on, but spontaneously. Its tasks for many, if not for a majority, of the enterprises of the military industry, were a complete surprise. A number of military orders were cancelled in from one to two quarters, that is, practically without warning. This placed the managers of defense production in very serious difficulties. It is known that the readjustment alone of the production for the output of items of average complexity (let us say, refrigerators) requires a year or two, but you have to find new clients, raw material suppliers and components, and retrain the work force, etc.! The difficulties became even greater, because the directive announcements of the conversion coincided in time with the shift of "post office boxes" to cost accounting and self-financing. There have been many times in our history when the economic consequences of an important political decision were not thought out in a timely way. We have made a "cavalier attack" on a serious problem many times.

The present mass reduction in military purchase orders is being conducted frequently not only without forethought, but according to the principle—reduce and that is all it takes. In order not to offend especially influential military clients, financing and funds are being cut approximately equally. This approach exacerbates the problem of the producers even more, and especially the developers of military equipment, inasmuch as now

the same programs will have to be fulfilled with a smaller financing total. It is clear that this means either an over-exertion of effort, or a lowering of the quality of a product.

It would be logical in this situation to take a different approach—drop a part of the existing military programs, and concentrate forces on the most important ones. Our military should finally realize that the budget is not a bottomless barrel, and conduct a thorough—and preferably an open—inventory of its economic household. A lot will be found in it that can be sacrificed without damage to defense capabilities.

The absence of a clear plan of conversion also affects its technical aspects. Of course, it is pleasing when a military plant shifts to civilian production. However, when, after missiles and aircraft, it begins to produce baby carriages or machines for bottling milk, you begin to think—is the advanced technology and the select work force concentrated there being utilized in the best way? Our military enterprises were isolated enclaves of the economy for so long that they cannot now painlessly get used to peaceful production. Practically all of the announced cases of conversion take place inside the ministries of the defense complex, without moving the enterprises to the jurisdiction of civilian organs of authority. Moreover, a reverse phenomenon is developing—poorly operating civilian enterprises are being placed under the wing of military-industrial ministries. This is what happened with some enterprises of the former Minlegpishchemash [Ministry of Machine Building for the Light and Food Industry and Household Products] which was transferred with all of its property and work force to the jurisdiction of the USSR Ministry of Medium Machine Building.

Actually, our military industry surpasses by many times the civilian sector in equipment, qualification of workers, and production and technical discipline. But the capabilities of the military enterprises should not be overestimated. It should not be forgotten that civilian production will never have a priority in enterprises that remain within the framework of the military complex. Today, for example, almost all refrigerators, an overwhelming portion [of the production] of television sets, washing machines, vacuum cleaners, and certain other types of everyday equipment are produced in military plants. However, can we say that the quality of these commodities satisfies us?

A special question is the cost of production and the prices of products of converted enterprises. If in the attainment of military objectives, costs are not that important, the main thing here is the highest end result, then for civilian production this principle is not suitable. The ordinary consumer will simply not be able to purchase very expensive products, unlike the Ministry of Defense. Civilian production in military plants will inevitably bear the mark of expensive planning and technology which inevitably will be reflected in prices.

There is another important point—supply. Today these military plants have absolute priority, everything that is the best and in short supply goes to them first and foremost. To the extent that the portion of civilian production at the enterprise is increased, the level of priority in supplies will decrease, and together with it the capability of the enterprise to produce more quality products as well. After encountering the usual problems of their civilian colleagues (obsolete equipment, difficulties with supplies, the lack of discipline of parts producers, etc.), the defense employees soon lose their current qualities little by little. It appears the same will happen with technological and labor discipline—a weakening of routine restrictions will quickly bring them down to the “normal” level.

So it does not pay to set one's hopes on the fact that military industry will lead our consumer sector out of the breakthrough. Here apparently, one can count only on short-term improvement. And if the conversion is not buttressed by the development of competition, a shift to wholesale trade, price reform, and other steps of economic reform, if converted enterprises are not included together with the rest in a real fight for the consumer, they will be deprived of their current advantages and will simply be dissolved into the general mass.

To avoid this, the converted enterprises, in terms of the development of economic reform, should be removed from the defense complex (through their sale to other enterprises and associations, leasing to worker collectives, local organs of authority, etc.) and acquire independence. Otherwise, in the near future, belonging to a defense complex will be turned from a virtue to a drawback. The experience of military-industrial complexes in the West says that exactly this will happen. Numerous studies attest to the fact that, according to all indices, the efficiency (productivity of labor, return on investment, material capacity) of military enterprises is significantly inferior to their civilian colleagues.

Is It a Boon to All?

A second dangerous shortcoming of the current conversion is the failure to consider its social factors. The impression is created that today the government does not pay any more attention to this than was the case in Khrushchev's time. There is no denying that the objectives of the conversion are noble, and that the benefits from them for the country should be significant. However, did anyone think about how those whose interests are affected first and foremost—the workers and engineers of military enterprises, their managers, the reduced personnel of ministries and departments, the officers discharged into the reserve—would treat conversion? No sociological polls were conducted on this subject; however, even without them it is clear that there can be no rejoicing regarding conversion among these categories of our population.

It is true that a demarcation has to be made here. For the interests of the ordinary workers, ITRs [engineer-technical workers], and scientific employees of the military enterprises, conversion does not constitute a particular threat. Practically all the advantages in pay, social privileges, and so forth, which they had 10-15 years ago, have, in effect, gone for naught. The average level of pay at Moscow defense plants relate to machine building is now practically equal to the average level of this branch of industry on the whole, that is, approximately 230 rubles per month. At the same time, the negative aspects of work in the VPK [military industrial complex]—the system of secrecy, strict discipline, and tough control over product quality—have been retained. As a result, the military sector of the economy lost its former attraction for the aforementioned categories of workers, a majority of whom, without any particular regrets, will agree to a transfer of their enterprises to civilian production.

The attitude of military personnel toward conversion is somewhat more complicated. On the one hand, managers of enterprises and departments of our defense industry also suffer, of course, from the strictness of military production, and in this sense the situation of their civilian colleagues is significantly calmer. However, on the other hand, not one civilian industry has such privileges in supply and financing as do VPK industries. The priority of defense industries not only assures them much more favorable conditions of work, but also raises the prestige of their managers, affects the level of personal privileges and the number and importance of state awards that are granted, etc. Inasmuch as conversion denotes the deprivation of the aforementioned advantages, than it can be expected that it will evoke a definite negative reaction among VPK workers.

One more important social aspect of the conversion is the attitude of the military toward it. A reduction in the armed forces, those already announced and still to be announced, in my view, did not delight Soviet officers. And this is not surprising. The memory of the excesses of the Khrushchev demobilization is still fresh.

According to the announced reduction for 1989-1990, about 100,000 officer personnel will be discharged into the reserve, and also a part of the warrant officers and petty officers. Meanwhile, an organ has not yet been set up which would be engaged systematically in the retraining and job placement of former servicemen in a civilian life that is unfamiliar to them.

Of course, the Ministry of Defense and the Goskomtrud [State Committee for Labor and Social Problems] are doing something along this line, and plans are even being made for the creation of special commissions under the ispolkoms [executive committees] for furnishing assistance to servicemen and their families; however, just so that these measures are not late. Experience shows that by far even highly qualified military specialists cannot always find work in their specialty. An example of this is

the situation with military engineers who served on nuclear-powered ships in the VMF [navy]. Their discipline and experience would be entirely suitable for our nuclear power engineering, but for the time being the path to a new position is frequently closed for nuclear specialist officers because of departmental separateness.

Housing is the most serious problem for those discharged into the reserve. If even before the current cuts we had about 20,000 officer families without a roof over their head (7,000 in Moscow alone), then you can imagine what can happen when those who are discharged pour into the civilian economy! According to estimates, this is another 40-45,000 families, of which the Ministry of Defense will be able to provide apartments for 7,500 thousand families in 2 years.

It can be assumed that the outlook for the reduction in the numerical strength of their subordinates does not make some members of the senior military leadership happy either. We will recall that a half year ago some representatives of the Ministry of Defense chastised scientists who expressed the idea on the pages of LITERATURNAYA GAZETA concerning the unreasonableness of a general callup of students of VUZ's [higher educational institutions] into the armed forces. Now this seditious thought has become common; however, could the views of the former opponents have changed so quickly?

A Law Is Needed

Speaking to the point, we are faced with three questions: What should be produced with the resources made available? Who should be involved in planning for and implementing the conversion? What should be the economic, political, and legal mechanism for retraining?

Speaking about the first question, the shift of part of the resources of defense industry, which was announced with fanfare, to patch up holes in the collapsed agricultural industry does not seem to me to be an optimal solution. Even greater concern is evoked by the proposal to utilize resources from the reduction of defense expenditures on such projects as a Soviet-American flight to Mars, or the construction of a bridge between Chukotsk and Alaska.

The Americans approach the question of national priorities in the use of resources that the economy can give for the arms race very seriously. In May of this year at an international conference in Bologna (Italy), the American national commission on disarmament and conversion submitted a document "The Budget Is the Salvation of America" which scrupulously mentions all of the most acute socio-economic problems of the United States, the "price" of their resolution, and the potential sources for covering the corresponding expenditures at the expense of items in the military budget.

Why should we not compile such a list, let us say, for those R10 billion by which our budget will be cut in the coming 2 years? It goes without saying that our list will be much longer than the American list. The desperate crisis in our health services and social security and food supplies, the very difficult situation in ecology, the provision of housing, and the area of education—these are our priorities today. Flights to Mars can wait until better times.

So that the distribution of resources occurs in accordance with the needs of the country, it is necessary to resolve these questions openly, with the participation of all of the people. Successful implementation of conversion is possible only under conditions of cooperation of all interested forces—the higher political and military leadership, the Supreme Soviet, the local organs of authority, worker collectives of enterprises of the defense complex, and, of course, the general public.

For the time being, only organs of executive authority are engaged in planning the conversion, and it is in this that there is a fundamental difference in our approach from the situation in countries in the West. There, the government shuns practical participation in the conversion, but a lot is done by social organizations, trade unions, and local organs of authority.

Our situation looks rather strange against this background: At a time when the government is making one important decision after another on conversion, the trade unions and local organs of authority, whose interests conversion affects in a very direct way, remain silent. The structures for public control over its progress are being established extremely slowly. (I know of only two small groups of conversion "activists," one of which functions in the staff of the Soviet Committee for the Defense of Peace, and the other, in the USSR Academy of Sciences. The status of these groups can be judged if only because they are not permitted into defense enterprises that are being converted.)

The chief defect of the current conversion mechanism is the lack of legislative support.

It is patently clear that neither the trade unions, the local authorities, or the legislators will be able to break up the monopoly in conversion possessed by defense agencies until a wide range of information on the VPK is made public.

While some progress has been noted in military and space openness, data on the VPK situation has changed very little. As previously, nothing is known about the number of those engaged in military production (the American specialist S. Melman puts it at 4-7 million persons against 3.5 million in the United States), their geographic distribution, and the technical capabilities of individual enterprises and their production performance. The irony is that a majority of our military-economic secrets do not have a practical significance,

either, because with modern surveillance techniques it is not possible to conceal them, or because they "conceal" that which in the West has long been yesterday's science and technology.

In other countries, much broader data on military economics is published and, as a rule, special laws exist in this respect. In the United States, any military contract costing more than \$5 million is made public. There is voluminous literature in the West that encompasses literally everything, right down to the legal and ideological aspects of the VPK. Owing to this, the most delicate problems of conversion are discussed freely there in the mass media, and anyone who wishes to can get a complete picture about it.

Without a revision of our attitude toward glasnost in the military and military-economic sphere, we will not be able to implement conversion efficiently. Representatives of the VPK received an overwhelming majority on the staff of the Committee on Questions of Defense and State Security that was formed. Meetings of the committee will be closed to the press. I am convinced that in the Fall the Congress of People's Deputies will have to consider the question of the composition and work routine of the committee. Otherwise it can hardly perform the functions of national controller of the VPK.

In its completed form, the USSR national program for conversion should include plans for re-profiling military production and retraining the work forces of military enterprises and personnel staffs of demobilized military units. It should be a law that is tied together in an industrial, financial, and territorial relationship, and coordinated with measures for cutting military expenditures, the armed forces, and armaments.

The following steps are needed for the preparation of such a program.

1. Creation of a special commission on conversion in the new USSR Supreme Soviet (or an appropriate subcommission on the staff of the Committee on Questions of Defense and State Security). The main task of this commission should be to work up a law on planning conversion, defining the duties of military, economic, and Soviet organs for planning, financing, and implementing conversion.

2. Creation in the USSR of a state commission on conversion headed by a member of the Politburo and whose membership would include representatives of the VPK, Gosplan, Ministry of Defense, MFA, and the AUCCTU [All-Union Central Council of Trade Unions], and other interested ministries and departments. This commission should become the main planning and coordinating center for the preparation of the national plan of conversion.

3. For the success of the practical preparation of conversion plans, it is necessary to establish appropriate conversion commissions or committees at all enterprises of the military industry and at local organs of authority in those regions where there are military enterprises and units.

These committees should have worker, engineer, economic, soviet, and military managers who should have all the necessary information and documentation for the preparation of conversion plans.

Along with re-profiling military enterprises and bases, one of the forms of their conversion could be their sale, with the participation of civilian enterprises and local soviets.

4. Acceleration of the declassification of data on our military economics. The organization of an objective-oriented program of scientific research for the practical preparation of conversion, including the creation of a national program "Conversion-2000."

5. Explanation and widespread propaganda of the ideas and principles of conversion in the Soviet armed forces, military-industrial complex, and among the population. With this purpose in mind, it makes sense to organize, parallel with the state and parliamentary commissions, a public commission on conversion, which would have representatives from the USSR Academy of Sciences, SKZM [Soviet Committee for the Defense of Peace], the "Znaniye" society, the press, the Council of War Veterans, etc.

And lastly. I will repeat once more that, with all of the importance of the conversion as a source of additional resources for our economy, it should not be counted on as a panacea. If conversion is conducted skillfully and effectively, it, of course, will help us get out of the crisis, but the long-term resolution lies on the path of radical economic reform. Without it, sooner or later we will "eat up" our military billions in the same way that we "ate up" our oil billions earlier.

Causes, Consequences of 1957 Kyshtym Disaster *18010839 Moscow IZVESTIYA in Russian* *13 Jul 89 First Edition p 6*

[Article by A. Illesh: "Thirty Years Before Chernobyl". First paragraph is an editorial introduction.]

[Text] At the invitation of the USSR Nuclear Society (whose creation was reported in IZVESTIYA No 41 and No 109 of this year), a delegation of the American Atomic Association, an influential, nongovernmental organization came to Moscow. Our colleagues had planned more than a few meetings with specialists and the public. Our correspondent was at one of them at the Atomic Energy Institute [IAE] imeni Kurchatov. In acquainting the Americans with the situation which came about in the

Soviet atomic energy industry after Chernobyl, Academician N. Ponomarev-Stepnoy, first deputy director of this enormous institute (approximately 20,000 associates work at the three IAE sites) shared, in particular, information which had until quite recently been considered completely secret, protected with special stamps in special departments. One of the pieces discussing the Soviet public society of atomic workers was entitled "The Nuclear Society Is Open to Opponents." As the meeting of Soviet and U.S. specialists showed, this society is prepared to share not only the successes, but also to honestly discuss the terrible pages of the formation of the industry, which made wide use of the not quite peaceful atom...

So what exactly happened in the Southern Urals on 29 September 1957?

We speak of the defense enterprise which was built near the city of Kyshtym immediately after the war for the creation of something fundamentally new—atomic weaponry. Understandably, in the early years of work of the enterprise, the personnel of this branch had no experience. Hence, there were mistakes. But that was not all: also lacking was a serious scientific study of the issues of preserving health and, moreover, the environment. In brief, such is today's explanation of the first steps taken in this tragedy long ago.

This is how it began. Here, at first, an enormous volume of water contaminated with a high level of radioactivity flowed into the Techa River without any purification! After some time, it became apparent that the radiation was being spread for many kilometers. Then a new (but by today's standards, hardly more sensible) solution was adopted: The wastes went into Karachay Lake, which has no outlet. Soon the lake also became overfilled with radioactivity, and it became dangerous to be on its shores.

The third solution to the problem of getting rid of "unnecessary wastes" was already one of engineering. But, alas, only to a certain extent. The wastes (up to 2 million curies) were poured into a concrete reservoir and buried. Apparently they did not think too long about observing precise dosage levels or other precautions extremely important in such situations. Nor did they consider the possibility of some sort of reaction, either chemical or physical, arising in the sealed reservoirs... The country required defense production, and it was turned out.

From the information prepared by the group of physicists, radiologists, and other specialists:

"As a result of the malfunction of the cooling system, an explosion (thermal) occurred in the concrete reservoir with highly radioactive nitroacetate wastes, leading to the discharge of radioactive fission products into the atmosphere with their subsequent dispersion and deposition on parts of the territory of Chelyabinsk, Sverdlovsk, and Tyumen Oblasts. The discharge comprised

approximately 2.1 million curies." (During the accident at the Chernobyl AES [nuclear electric power station], 50 million were discharged. Incidentally, there are no highly radioactive wastes at the AES which require special cooling, and the fuel is specially preserved).

And this radioactive trail crept over some 100 kilometers, at a breadth of about 10 kilometers. Specialists cite another figure as well—the contaminated zone (calculated by strontium-90 fallout) was over 15,000 square kilometers, and approximately 270,000 people lived in this territory. Over 10,000 people were resettled from the regions extremely dangerous for life encompassed in this zone. (With the accident at the Chernobyl AES, 116,000 were evacuated). The period of the initiation of the evacuation extended from a week to a year and a half.

How were the land, fields, and meadows here restored? Agricultural lands were replowed. Over the course of 2 years (1958-1959), 20,000 hectares in front of the trail were subject to normal plowing. Deep plowing was done in a 6,200 hectare area in 1961-1962... A program of limited utilization of contaminated territory was introduced in only the most dangerous areas immediately after the accident. Later a sanitary-defense zone was established in the entire contaminated territory.

In Chelyabinsk and Sverdlovsk Oblasts, the gradual inclusion of the lands in agricultural use was begun. Nine specialized sovkhozes were created in the damaged territory mainly to produce meat, a product with a minimum strontium-90 content, compared with others. Scientists developed recommendations for the local areas' output of agricultural products. Alas, this advice was little known to those who were growing produce in their private plots.

While the radioactive hygiene and the ecological situation were being studied, among the local population specialized public health brigades were conducting curative-prevention and, as the information asserts, educational work. Other measures were also taken to reduce entry of radionuclides into people's organisms. But today, the specialists acknowledge that the measures taken at the time were ineffective. The thing is that because of the peculiarities of the landscape, the decontamination of the territory was of little use.

And how did medicine monitor the population? The radioactive contaminated zone was cordoned off, and those living there were (in stages) moved to other, cleaner places. People were monitored; the parameters of their physical condition and blood production were recorded. Neurological status was investigated; child and infant development were monitored; infant mortality was recorded. Research was conducted annually during the first 3 years after the accident; later, once every 10 years. It continues even now.

And one of the sorest points since Chernobyl is: What about radiation sickness? Are there data on the genetic changes among the Ural inhabitants? I cite the documents again:

"Radiation sickness, all forms, negative. Depression of bone marrow function, negative. Quantitative reduction of blood platelets, individual cases. Functional-neurological disturbances, individual cases. Allergic reactions, negative..."

Specialists maintain that even against the background of the infant mortality rate existing in those years, there was no manifestation within this index of any aggravating effect of elevated radiation. We are all anxious over the extreme possibility of the appearance of anomalies in the progeny of irradiated parents. The investigation of this index of not only the first, but the second generation of individuals exposed to radiation allows public health personnel to assert that everything is fairly satisfactory here, too.

And finally, cancer. The chart of mortality rates from malignant tumors corroborates that no differences in mortality dependent upon people's place of residence are

manifest. And with time, the frequency of cancer death is nevertheless increasing, both throughout the world and in the USSR, as well as, in particular, in the territory of the radioactive trail. What is the matter here? Public health officials maintain that this is conditioned by the general processes of the deterioration of the world's ecological condition.

...It would be very difficult to simply take today's interpretation of such old facts at face value. But it must be done. For, in the meantime, we have no other data or explanations of what happened on 29 September 1957. But I am convinced that it is impossible to simply forget about what occurred, whatever it was, no matter how soothingly the specialists talk about it today, however satisfactory, from the radiological point of view, the situation in the Southern Urals appears. Of course, it is difficult to compare modern, technologically complex production, all the more so, the atomic energy industry, with the secret plants and factories hastily erected during the first escalation of the nuclear arms race. But in order to be certain not only of today, but of our tomorrow, strict public control must be imposed over all production potentially harmful to health.

Downed Soviet Helicopter Found in Angola
18070301 Moscow IZVESTIYA in Russian
26 May 89 Morning Edition p 5

[Article by R. Ignatev in Moscow and M. Pavlov in Luanda: "The Crew Did Not Return from Its Mission..."]

[Text] The remains of the passengers and crew of a Soviet MI-8 helicopter, who were believed to be missing for almost eight years, were found 140 kilometers north-east of Luanda, the capital of Angola.

The accident occurred on 19 June 1981. The crew of the Moscow Central Region Civil Aviation Administration Myachokovskiy united aviation detachment flew off, as always, on its usual flight path. Soviet pilots and experts were then on a prolonged business trip and were carrying out work in Angola at the request of topographers. Seven men were sent on the mission on that ill-fated day: Commander Ye. Aydarzov, Co-Pilot Yu. Podorvanov, Navigator M. Smirnov, Flight Engineer A. Chuvashov, Radio Operator V. Astakhov, and Topographers N. Danilov and V. Korotkov. Oleg Beloborodov, the 13-year-old son of a Soviet citizen working in the NRA [Peoples Republic of Angola] was also lost with them.

The crew was supposed to survey the terrain in one of the mountainous regions. The helicopter flew out from Luanda in the morning. Five minutes later, a report came in that everything was normal, the helicopter had climbed to 300 feet, and was departing the radio monitoring zone. The dispatcher gave them permission and requested that they resume contact when they returned to base. However, the crew did not return from the mission...

The search began as soon as the information was transmitted about the disappearance of the Soviet helicopter. Our experts and servicemen from Angola were attached. A air and ground search was conducted in a 15,000 square kilometer area. A USSR Gosavianadzor [State Aviation Directorate] commission was in operation from the very first days of the accident and assisted the Soviet Embassy in the NRA and Angolan organizations. The local inhabitants were also involved. They said that they saw a blue and white helicopter that was flying through heavy fog at low altitude.

The search operation lasted more than a month. But it did not produce any results. The Commission came to the conclusion that the MI-8's disappearance could be attributed to an attack by a detachment of the UNITA anti-government group. Incidentally, this helicopter was shot at earlier, on 8 December, 1980. The aircraft skin received serious bullet holes and systems were damaged as a result. The pilots then flying the aircraft barely managed to reach the base and land the aircraft. The helicopter was returned to service after repairs. And six months later it disappeared.

Experts also advanced this version: The crew became disoriented in the severe weather conditions and collided with an obstacle. We need to point out here that all crew members were trained to carry out this mission and they had a great deal of experience and were highly professional.

We did not succeed in establishing the real causes of the crash. Nevertheless, the search continued. And recently Captain Kuya Zakariesh Anzhel, an Angolan serviceman, discovered the remains of a helicopter with Soviet markings approximately 140 kilometers north-east of Luanda. A report about this reached the Soviet Embassy. Preparations were begun immediately for a special expedition to work at the accident site. It was planned to be conducted in two stages. At first, a small group was sent for the purpose of clarifying the situation, determining travel difficulties, and the condition of the remains. A 15 May departure was planned. And it was proposed that the main work be carried out two days later.

"The first party departed on 15 May as planned," said P. Kocherga, lead pilot-inspector of the Ministry of Civil Aviation Main Inspectorate for Flight Safety. "We could have run into UNITA bands in the area we were headed for. Besides myself, the group consisted of Ya. Gadzhiyev and translator I. Zaytsev. Twenty Angolan soldiers and local guides were assigned to escort us. We were equipped with everything we needed. The whole route lie along mountains overgrown with three meter high grass and by jungle. In short, everything was done to ensure our safety and passage to the accident site.

We flew out in a helicopter in the morning. The helicopter landing site had been prepared earlier. But the site selected on the eve of our flight turned out to be mined and we had to look for another landing site. As a result, a mini-airfield set up a bit farther from the site where the helicopter was lost. The route was significantly lengthened. Our movements were complicated not only by nearly impenetrable underbrush but also by the intense heat. The thermometer was over 30 degrees. Plus enormous humidity. And there was also the 50-60 degree slope of the mountains...

We stopped to rest every eight to ten minutes. The walkie-talkie went out of order during the trek. And we could not communicate with headquarters to report on the change of route. They were worried about us. The reserve communications channel began operating only after a certain period of time had passed...

We found the remains of the helicopter on the crash site. It was totally destroyed and had burned. We were convinced by the numbers preserved that this was precisely that aircraft which had disappeared on 9 June 1981. We found the remains of the dead.

We had to shorten our visit to the crash site since they were expecting us at the helicopter landing site at a certain time. It becomes dark at these latitudes at 18:00 hours and we had to take-off from there while it was still light. Our route on foot was 16 kilometers long.

Upon our return to Luanda, the commission investigating the causes and circumstances of the helicopter's loss summed up its preliminary results. As a result, they came to the conclusion that it was not advisable to continue the expedition—the situation had worsened in the region. The trip scheduled for 17 May was canceled. And, as we became convinced later, this decision turned out to be sound: On 16 May, UNITA conducted an

attack at an intermediate point where our helicopters had landed. On the next day the area where the expedition intended to work was fired upon.

The remains of the dead are now being sent to Moscow. An examination and processing of materials is being conducted. The final conclusions about the causes of the catastrophe can only be made after the commission's investigation.

Undoubtedly, both the helicopter's crew and everyone who was then on board were courageous while working in a difficult, we can say, a combat situation. It is an honor to them and our memory.

Assessment of French Nuclear Submarine Force
18010819 Moscow KRASNAYA ZVEZDA in Russian
24 Jun 89 First Edition p 5

[Article by Captain Third Rank A. Gladkov under the rubric "In Foreign Armies and Navies": "Cornerstone of French Strategy"]

[Text] Increasing its military expenditures each year, the government of France allots a significant portion of the funds to the development of its strategic nuclear forces (SYaS). Thus, their share will total 40.7 billion francs or 22.3 percent of the entire military budget this year. The strategic nuclear forces, which constitute the foundation of France's military might, consist of three components: land-based ballistic missiles, medium-range strategic bombers, and fleet ballistic missile submarines (SSBN). Up to 80 percent of the striking power of the SYaS is concentrated aboard nuclear submarines, which are continually being improved.

Fleet ballistic missile submarines and technical support resources are brought together in a special strategic naval command (SMK), which is organizationally an element of the Navy. It includes an SSBN squadron (activated in 1971), a naval strategic forces base located in the region of Brest (a basing point at Ile-Longue, a training center at Roche-Douvre, and an arsenal of ballistic missiles at Genvene), and a communications center at Rosne. There are about 3,200 people in the SMK. All the servicemen are volunteers, and the majority of them serve under long-term contracts. To be assigned to an SSBN crew, the officers and sailors undergo special tests.

Presently there are six SSBN's in the force composition: Five are of the "Redoutable" class (the "Redoutable," the "Terrible," the "Foudroyant," the "Indomitable," and the "Tonnant"), and one is of the "Inflexible" class. Originally, the first two submarines were armed with M1 ballistic missiles with a range of 2,500 kilometers. The SSBN "Foudroyant," introduced into the force composition of the Navy in 1974, was already armed with M2 missiles (range of 3,000 kilometers). Then, beginning with the "Indomitable," M20 missiles with a range exceeding 3,000 kilometers were installed on the submarines. By the beginning of the eighties all the SSBN "Redoutable" class submarines were armed with M20 missiles as the result of a refitting.

The SSBN "Inflexible," delivered to the Navy in 1985, is armed principally with a new M4 three-stage ballistic missile with a range of 5,300 kilometers and carrying in its front section six thermonuclear devices with a yield of 150 kilotons each. Each device can be delivered on a single target, or all six warheads can be dispersed over an area of about 20,000 square kilometers. The rearming of four SSBN's with these missiles was begun in 1987. The modernization of the "Tonnant" is complete, and performance tests on the "Indomitable" are being concluded. The "Terrible" and the "Foudroyant" are next. According to a statement by France's Minister of

Defense J.P. Chevenement, by 1992, after conversion to the M4 ballistic missiles, the country's naval strategic forces will have at its disposal 500 warheads, which can be launched from the missile-armed submarines in a single salvo.

To replace its existing submarines, France has undertaken the construction of a new generation of SSBN's, which will incorporate all the achievements of nuclear submarine construction. They will have a significantly larger displacement (approximately 14,200 tons) and modern hydroacoustic and electronics intelligence equipment. A significant decrease in the level of noise is anticipated, which will complicate an enemy's task of searching for the submarines. Construction of the leading SSBN of the new series, the "Triomphant," was begun in 1988 at the shipyard in Cherbourg. According to information from Admiral B. Luzot, France's Navy Chief of Staff, it should be introduced into the force composition of the Navy in 1994. Subsequent submarines will be delivered to the Navy at intervals of 2 and ½ years. In this manner, France's missile-armed submarine fleet will be completely renovated by the year 2008, when the program will be completed.

The M5 ballistic missile is being developed specially for the new generation of missile-armed submarines. Its front section, according to the French press, will have as many as 12 nuclear warheads. However the missile is expected to come into service only in the year 2000, and plans have been made to equip the first two "Triomphant" class submarines with the M45 missile, with a range exceeding 5,000 kilometers and carrying nuclear warheads. The third and subsequent SSBN's will be armed with M5 missiles.

Since 1985, three missile-armed submarines are continually on combat patrol. This figure, according to Admiral Luzot, is determined by operational needs and conditions for the servicing of arms and equipment. To maintain such a volume of combat utilization of the SSBN's, the following cycle of activity has been established: For two weeks the submarines are prepared for departure to sea; combat patrol lasts 8-10 weeks; and for 4-5 weeks repairs and routine checks are performed at the point of basing after the submarine returns from patrol.

For each SSBN there are 2 interchangeable crews, a "blue" and a "red," each with 135 people, 15 of whom are officers. In addition to the 12 combat crews, a thirteenth has been created, a "green." Its personnel are used to bring the regular crews going to sea up to prescribed strength levels. After a return from patrol, the personnel hand the submarine over to their reliefs over a period of several days and then leave for a vacation. After their vacation, the crew spends six weeks in a training center undergoing a course of practice drills on simulators to maintain professional qualifications.

Before each combat patrol the general officer in command of the SMK personally inspects the submarine over a period of two days, after which he gives the order for the departure.

On combat patrol, only the commander knows the location of the SSBN; the crew do not know. Upon receiving a signal to launch the missiles, a coded signal is entered into an EVM [computer], which issues control data for the missiles. The commander and his second-in-command simultaneously enter a code, and only in this event is the firing chain initiated.

Taking into account the great psychological and physical strain experienced by the crew on combat patrol, the command element of the Navy has paid great attention to improving living conditions on the submarine and has granted the personnel substantial additional privileges. Aboard the SSBN there is a library, a videotape recorder, and a film projector. According to the French press, each member of the crew has the right to receive a radio-telegram of up to 30 words once a week from his family. The commander examines these radio-telegrams beforehand, and if in his opinion some piece of news will be distressing to the addressee, the commander has the right to withhold the telegram.

The radio transmitting center in Rosne is intended for the transmission of signals to the SSBN at sea. According to the press, the transmission is sent using very low frequencies, which permit reception of the signal while the submarine is submerged to a depth of up to 15 meters. If the SSBN is at a very great depth, an antenna may be used which ascends to a depth where reception is dependable.

The constant attention which the military and political leadership of France gives to the development of sea-based strategic nuclear forces indicates that it attaches great importance to the role which they are called upon to play in a modern war. The naval strategic forces are used as the cornerstone of the French strategy of "nuclear deterrence." The French ruling circles base the development and perfection of these forces on the desire to keep France firmly at the level of the world's third nuclear power.

Specifications, Role of SSN-21 Sea Wolf Class Nuclear Submarine

*18010823 Moscow KRASNAYA ZVEZDA in Russian
27 Jun 89 First Edition p 3*

[Article by V. Belyayev under the rubric "Review of Military Technology": "Submarine of the 21st Century: The Passions Surrounding Project 'Sea Wolf'"]

[Text] In accordance with U.S. Navy plans, the lead nuclear-powered attack submarine of the SSN-21 class should be commissioned in 1995. Development of the new submarine began in 1982 when a scientific and technical group named "Tango" was formed under the

leadership of Vice Admiral N. Tanmen. In 1984 the project received congressional approval. Since then passions have raged around the submarine of the 21st century.

The SSN-21 "Sea Wolf" class submarine (see illustration [not reproduced]) is an advanced SSN-688 "Los Angeles" class submarine and should have improved characteristics. Special attention is being devoted to a decrease in the level of noise. In this area, work is underway to improve both the propulsion unit and the hydrologic characteristics of the submarine. The maximum "acoustic speed," i.e., the speed at which the level of noise is deep enough to be detected by passive systems, will exceed 20 knots (at the beginning of the eighties this indicator rarely exceeded 8 knots).

The propulsion unit of the "Sea Wolf" class submarine will consist of one nuclear reactor and two steam turbines. The propulsion plant will generate 60,000 horsepower. This is enough to reach a maximum submerged speed of 35 knots. In addition to a propeller, the submarine will make use of water jets similar to those on British "Trafalgar" class submarines.

Eight torpedo tubes situated in the center section of the submarine's hull will make up the armament; they are designed to fire Mark 50 "Sea Lens" and Mark 48 class torpedoes. Missile armament will consist of "Harpoon" guided missiles and "Tomahawk" cruise missiles.

Where submarines of the "Los Angeles" class have horizontal rudders located on the hull of the superstructure, the rudders on the "Sea Wolf" class submarines will be located in the bow section of the hull and may be retracted while floating under ice.

Plans for the SSN-21 "Sea Wolf" class submarines include the use of an integrated complex of hydroacoustic surveillance networks and BYS-2 weapon guidance systems, which are being developed by the General Electric company under contract at a cost of 13.6 million dollars. Another company, IBM, is also developing a similar system. After the systems are tested and evaluated the winning company will receive the right to produce the BYS-2 systems at a total cost of 1.84 billion dollars. The complex will include the most up-to-date acoustic systems with the ability to seek out, detect, and identify targets and to automatically calculate firing conditions as well. Various hydroacoustic gear will possess high resolution and will detect small targets, such as antisubmarine mines. Not only will this gear be installed in the hull of the submarine, but towed sonar in the ballast tanks will be used.

The journal INTERNATIONAL DEFENSE REVIEW published some design data for the SSN-21 "Sea Wolf" class submarine: When submerged it displaces 9,150 tons, the length of the hull is over 100 meters, the width is 12.2 meters, the height is 10.2 meters, and it holds a crew of 130 people.

The U.S. Navy plans to build about 30 submarines of this class. The cost of the program is estimated at 35 billion dollars. The construction will be performed by the companies General Dynamic/Electric Boat and Newport News Shipbuilding and Drydock. Three or four submarines should come down off the building ways annually. This is done with the intention of maintaining the number of nuclear-powered attack submarines (SSN) at a level of 100 units.

In May 1987 the company Newport News received a contract for the sum of 325 million dollars to complete planning on the submarine. Construction was begun on the lead submarine in November 1988. The cost of its construction is estimated at 1.6 billion dollars and, beginning with the fifth submarine, costs should stabilize at a level of 1 billion dollars. It was reported that more than 1.9 billion dollars will have to be spent on scientific research work on the hull of the submarine, its propulsion plant, and electrical equipment. There are plans to allot funds in fiscal year 1991 for the purchase of two submarines at a price of 1.03 billion dollars. These figures, published three years before construction was begun on the first submarine, evoked criticism from congressmen which has not yet subsided.

The principal objections challenge the cost of the program and the characteristics of the submarine. There were attempts to bury the project, which was considered "the supersubmarine of the 21st century." T. Batista, former head of the Armed Services Committee under the House of Representatives, declared that the Navy should abandon the SSN-21 submarine project as quickly as possible and effectively concentrate on a project with fewer flaws. B. Lind, president of the Institute for Military Reform and an ardent advocate for the development of submarines, also subjected the "Sea Wolf" submarine program to criticism, calling the submarines "soap bubbles which will entrench forever a long-standing weakness of American submarines: excessively high cost and exaggerated dimensions, as well as problems related to maneuverability, speed, running depth, etc."

Nonetheless, the Congress approved the allotment of more than a billion dollars for the construction of the submarine for fiscal year 1989. In the course of the election campaign G. Bush and M. Dukakis declared their support for the "Sea Wolf" program and stressed that they would allot funds for it.

N. Polmar, a well-known analyst in the field of naval arms stressed that it does not pay to emphasize the construction of nuclear submarines alone. It should be possible to find an optimum combination of nuclear and diesel-electric submarines. He calculated that one SSN-688 "Los Angeles" class nuclear submarine costs the same as three conventional submarines. This ratio multiplies when SSN-21 class submarines are purchased.

Polmar believes that the cost of the SSN-21 class submarine will be excessively high, and that there clearly will not be enough of them to maintain the number of attack submarines at a level of 100 units.

Polmar believes that, of the six basic parameters defined at one time by the group "Tango," the SSN-21 submarine satisfies only one in its entirety (operations in the Arctic), two in part (speed and armament level), and does not satisfy at all the parameters for running depth and location of the torpedo tubes.

Active criticism of the SSN-21 "Sea Wolf" submarine program has brought matters to the point where its future is not clear for the present, despite the fact that the Congress has approved the money for the lead submarine. In the opinion of specialists, "the 'Sea Wolf' submarine will undoubtedly be built, but a new strike submarine is needed for America as soon as possible." The future will show how much the "Sea Wolf" justifies its title as "the supersubmarine of the 21st century."

Direction of Western Combat A-C Development
18010833 Moscow KRASNAYA ZVEZDA in Russian
6 Jul 89 First Edition p 3

[Article by KRASNAYA ZVEZDA correspondent Col A. Andryushkov: "12 Flying Days at Le Bourget—Comments on the 38th International Air Show"]

[Text] Dear Editors:

I have been following KRASNAYA ZVEZDA's coverage of the 38th International Air Show at Le Bourget with great interest. I believe that your correspondent is overdoing his praise of Soviet aircraft. Your glowing descriptions of our aircraft create the impression that the craft from other countries are made of birch bark. In a word, I believe that readers have had enough of your one-sided information.

Senior Reserve Lieutenant A. Mironov
Serdobsk

Senior Reserve Lieutenant is right. In my reporting from Le Bourget I was pursuing my main purpose: featuring Soviet aircraft on display at the 38th International Show. And I must say that we put on a great exhibition. Our competitors' presentations were not exactly made of bark skin, of course. Let me tell you more about Western developmental trends.

As noted by experts, the leading firms supplying aircraft to NATO and other countries on all continents decided that this time they would not present any surprises in the way of radically new designs at Le Bourget. They went the route of showing modified series-produced and proven fixed- and rotary-wing craft. This is not to say that design offices of Western Europe, America, and Asia are not busy in search of new designs. It is just that none were in evidence at Le Bourget.

What is there of interest to us relative to the modifications shown at the exhibition? Let me describe some types. The whole world knows the F-16 fighter, which until recently has been touted as the best fighter plane. It is in service in all NATO countries. Shown at Le Bourget was a modification of the series-produced and much flown F-16, which is in use by the air forces of Belgium, Norway, Denmark, and Holland. The modifications (model MLU F-16A/B) are as follows. It is fitted with a more compact and powerful radar, a computer memory, and a data processor. Interest was shown in a General Dynamics integrated piloting and navigation system that offers high accuracy in aircraft control and combat employment.

The Dutch Air Force is a major customer for the F-16. It plans to have 162 fighters organized into eight full-strength squadrons. For this reason it is carrying out exhaustive tests of the F-16's new features, some of which include a night vision device tied to the pilot's helmet; a digital navigation system for terrain-following flying; and an integrated radar system with infrared capability.

I learned from conversations with pilots from the above countries that the improvements have a down side: a heavy weight penalty for the F-16 A/B, which impacts on the maneuverability and service period.

Also going the route of modifying its aircraft is the Swedish firm SAAB. A canard-wing JAS-39 Gripen fighter recently crashed. The Swedish Defense Materiel Administration was to offer technical information on this craft and its modification in Le Bourget. Deliveries of the JAS-39 Gripen are to start in 1995. However, a SAAB spokesman said, "We are in tough price negotiations. The technical report, which has long been in preparation, is still not ready." Experts admit that the accident has been unsettling for the firm. Much time will be required to eliminate the shortcomings in the flight control system.

Interest in solving modification problems was exhibited relative to the U.S. ground-attack A-7A Corsair, the A-7F Strikefighter, the A-10 and the A-16 (a special modification of the F-16). They are all intended to support ground troops and carry out tactical missions.

An A-7F powered by new engines is to be employed against advancing enemy troops. This F-16, modified as a ground-attack craft, carries AGM-65 Maverick missiles and other high-accuracy weapons in its tactical role. Plans call for delivery of 146 F-16 C Block-30s and 225 A-10s.

It is planned to equip the modified ground-attack craft with night vision capability by tying an infrared vision device to a display on the pilot's helmet. The pilot controls the "hawk's eye" system by turning his head. Of particular interest is coordinating the ground-attack craft's actions with those of ground troops. This purpose is served by a compact mobile ground-air-ground device

providing two-way information on the course of combat. The navigation problem is solved by a new system permitting terrain-following flight. In the testing stage are the four-barrel GAU-13 gun and electronic counter-measures equipment.

The Soviet aerospace items shown at Le Bourget did in fact dominate the show. I and thousands of other visitors to the celebration of world aviation came under the impression that this was the Exhibition of Achievements of the USSR National Economy, not the 38th International Aerospace Show. I believe that there were several reasons for this.

First, the first thing the visitors saw upon passing through the main entrance was the USSR pavilion. Its location was traditional and permanent, and its size impressive—2,200 square meters. After passing through about two kilometers of pavilions and various aircraft and space hardware, rows and stacks of all manner of armaments from other countries, the people found themselves looking at another viewing platform offering Soviet fixed- and rotary-wing craft. However, from far away everyone was attracted by a magnificent complex: our AN-225 Mriya air giant with the snow-white Buran Space Shuttle mounted above the fuselage. Selection of the location of the viewing platform was up to the show organizers. Let us say that this was fortuitous.

Nonetheless, it was not merely the above that set apart the Soviet contingent at Le Bourget. The writer of the above letter chides me for what he sees as much favorable description of our aircraft, the point being that they are undeserving. I beg to differ with that. In my reporting on Soviet fixed- and rotary-wing craft and the people representing our country, it was for me not a simple matter of pride. I attempted to convey to the readers as objectively as possible the idea that we have something to be proud of and that we should not suppress this feeling of pride in favor of admiring all that is "theirs." Read what the foreign press has to say about our presence in Le Bourget.

JANE'S DEFENCE WEEKLY, the professional aviation journal, devoted issue No 24 to the Le Bourget show. The cover carried a view of the Mi-28 combat helicopter, which was piloted in the French skies by Distinguished Test Pilot of the USSR Gurchen Karapetyan. The journal compares its characteristics with those of the American AN-64 Apache (developmental work of which has been completed, incidentally) and the French Super Puma. To be sure, Gurchen Rubenovich did not execute the advanced aerobatic maneuvers accomplished so well by the French pilot in Super Puma, but the power of the armament and reliability of many systems are such that the Mi-28 had no equals.

Granted that the Rafale fighter aroused interest with its elegance of form and unusual aerodynamic layout—the canard-wing design, with the stabilizer located behind the wing. This craft, widely advertised in the West, has

eaten up millions in taxpayers' money. Visitors were not allowed to approach it, nor were experts permitted to have a look inside the cockpit. However, even the Rafale could not duplicate our pilots' feats in the SU-27 and MIG-29. I am not thinking of the sensational cobra demonstrated by Viktor Pugachev, which was not attempted by pilots from other countries, or the bell, with which Anatoliy Kvochur amazed onlookers a year ago in a MIG-29 at Farnborough, a maneuver executed with some roughness in a Mirage 2000.

West German pilots permitted me to spend several minutes in the cockpit of a Tornado—a so-called Eurofighter. Although the cockpit is not more comfortable than that of the SU-27, some of the devices making up the flight control and navigation system, such as those that enable terrain-following flight, for example, suggest that our industry still has some work to do. A.S. Systsov, minister of the USSR Aviation Industry, told me openly about problems encountered by our microelectronics. Nevertheless, JANE'S DEFENCE WEEKLY gave a two-page spread of photos of our aircraft, with the headline "Soviets Steal the Show at Le Bourget."

Our combat aircraft were not the only star performers. There was nothing there to rival the Mi-17 IVA helicopter, known as the "flying hospital." Its commander, Test Pilot Yuriy Pronin, was invited to visit many countries so that he could display the helicopter, the humanitarian purpose of which is a topic of interest to all humanity.

Our IL-96-300 and TU-204 liners, shown for the first time at an international show, came out very well against the passenger-type Boeings, Fokkers, Falcons, and McDonnell Douglas airplanes.

On 19 June the aircraft flew their separate ways. They were to describe their last circle over the Paris suburb before meeting again two years in the future. "Once again," the correspondents informed their readers, "the

Russians came up with a surprise: Anatoliy Kvochur, who had ejected from his craft on 8 June, took to the sky in a training version of the MIG-29!"

The feeling of the unexpected soon passed. Quite a stir was caused by the Soviet K-36 ejection seat, which turned out to be more reliable than the others shown at Le Bourget. I had a look at the ejection systems installed in the Tornado, Harrier, SAABs, Dragons, and many U.S. aircraft. After properly examining their convenience, touted elegance, and design, I noted a lack of standardization. Pilots are familiar with the difficulty of shedding old habits. In retraining for a new aircraft type, they automatically carry over their piloting actions to the new craft. I asked company representatives if their ejection seat would save the pilot's life in Kvochur's situation. None of them could give me a positive answer.

I can say without exaggeration that all of France was emotionally affected by the Soviet pilot. I have in my possession a copy of a letter written to Anatoliy Kvochur by a French schoolboy. Christopher Vidal of Sareel writes: "Mr. Kvochur! My name is Christopher. I am eight years old. I became quite frightened when your airplane fell down. Papa explained to me that you were flying the plane and that you pointed it at the center of the airfield, away from people on the ground. It would have been very painful, maybe you would have died, if the parachute did not open in time. I want to tell you how much I am thrilled by your courage and nobleness. I wish you health and many flights. Christopher."

Kvochur prepared for his flight. On 19 June he rendered navigator-lead man Yuriy Yermakov "unemployed" and took off in the MIG-29UB with Roman Taskayev. He performed in his usual manner: confidently, cleanly, boldly. He executed a roll over the runway and shot upward into the blue sky. People who were familiar with Anatoliy Kvochur's style were moved to tears.

Why should we not express feelings of praise for our technology, achievements of scientific thinking, and high spirit of professionalism of Soviet pilots?

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